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Halley, Edmond

Miscellanea Curiosa.

Containing a

COLLECTION

OF

Curious Travels,

VOYAGES,

AND

Natural Histories

OF

COUNTRIES,

As they have been Delivered in to the

ROYAL SOCIETY.

VOL. III.

LONDON:
Printed for *R. Smith*, at the *Bible* under the *Piazza* of the *Royal Exchange* in *Cornhill*. 1708.

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THE

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Miscellanea Curiosa.

VOL. III.

A Journal of a Voyage from England *to* Constantinople, *made in the Year*, 1668. *by* T. Smith, *D. D. and F. R. S.*

ON *Monday* Evening *August* 3, 1668. we took Barge at *Tower-Wharf*, and at *Greenwich* went on Board the *Bezant* Yacht for the *Downs*, where we arrived the next day in the Afternoon, and went on Board the *Leopard* Frigat, a Ship of 56 Guns mounted, Captain *O Bryen* Commander, appointed to carry Sir *Daniel Harvey*, his Majesty's Ambassador to the Port of the *Ottoman* Emperor at *Constantinople*. Here, upon his first Arrival, the Ambassador was Complemented by Sir *Jeremy Smith*, then riding Admiral, Sir *Edward Spragg*, and several other Commanders of the Men of War,

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and afterwards Saluted with Fifteen Pieces of Ordinance by the Admiral, to whom we returned as many; then by the Vice-Admiral, and ſeveral other Ships. All which were anſwered together at the ſame time with 21 in the whole.

Here we were forced to Ride for ſeveral days, the Winds being contrary.

In the *Offing* between the *North Foreland* and *South Foreland* it runs Tide and half Tide, that is, it is either ebbing Water or Flood upon the Shore, in that part of the *Downs*, three hours, which is groſly ſpeaking the time of half a Tide, before it is ſo, off at Sea: (For the flux and reflux of the Sea is not made exactly twice in 24 hours, but, as it appears by accurate obſervation, it requires an overplus of almoſt 50 minutes.) The reaſon of this diverſity of Tides, I take to be from the meeting of the two Seas in that narrow Streight.

Oftentimes when the Wind has blown hard at N. E. or at W. or W. and by S. there has hapn'd an altertation of the Tides in the River of *Thames*, which ignorant People have miſtakenly lookt upon as a Prodigy.

It is a moſt certain Obſervation, that where it flows Tide and half Tide, tho' the Tide of Flood runs aloft, yet the Tide of Ebb runs under foot, that is, cloſe by the *ground*; and ſo at the Tide of Ebb, it will flow under foot, as that great and experienc'd Sea-Commander, Sir *H. Manwaring*, words it.

Auguſt 9. We ſailed from the *Downs*, but were ſoon forced back by diſtreſs of Weather, and came to an Anchor S. W. of the *South Foreland*. 10.

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10. The Wind blew at S. S. W. and the Sea run very high, so that we were in danger of losing our Cable and Anchor; the Ground, where we rode, at 16 Fathom ½ water, being somewhat gruff.

15. The Wind coming about at W. N. W. we sailed, and were Saluted with nine Guns from *Dover* Castle, and seven from one Fort, and five from another. We carried a Flag upon our Main-top, after we came out of the *Downs*. The Wind in the Afternoon at N.E. brought us by seven of the Clock to the *Ness*, where we lay at Anchor during the Tide of Flood; during which time the Mariners caught good store of *Whitings*, baiting their Hooks with raw Mutton.

16. We were in the morning athwart St. *Helen*'s Point in the *Isle of Wight*; where we discovered Sir *Thomas Allen* with his Squadron under Sail, bound for the *Straits*.

17. In the morning we got to the West of *Portland*, the Wind at N. by E. our Course lying thereupon S. S. W. but about noon, sailing over part of the Race of *Portland*, where we met with a tumbling Sea, we Anchored at the N. W. part in the Bay, over against the Point that looks towards *Weymouth*. We were ashore in the Island, which seems to be but one continued Rock; the Soil in several places not being above five or six Inches deep, as I found by digging a hole with my Knife; yet the Corn flourishing enough. The Castle consists of a double Fortification; we could not observe above five Guns mounted. They told us, that in the Island there was but 1 Church, and 4 Villages.

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We weighed at twelve of the Clock at night: But

18. The Wind blowing fiercely at W. directly in our teeth, we made but little way, and could not weather the *Start* Point that night. The Moon upon its first emerging above the Horizon, seemed to have a colour like burnt Brick, the Sky very cloudy: but some Rain falling, as she advanced higher and higher, she appeared more and more fiery.

19. We weathered the *Start* Point by noon, but could not make much way beyond it.

20. We got into *Plymouth* Sound. The Cittadel, built upon a Rock, with large Counterscarps and Bastions, returned our Salute with nine Guns. Sir *Thomas Allen* with his Fleet stood to the Lizard, and came not to an Anchor.

21. Misty Weather. About eleven Clock Forenoon, and about six in the Evening, we observed the Vapours in great quantity ascend out of the Sea, soon covering the tops of the Mountains. Here we staid three days, taking in some Provisions, ready prepared for us.

On *Sunday* the 23*d* of *August* we weighed out of *Plymouth* Sound, and made the *Lizard*, a Promontory in *Cornwall*, before night: The *Manacles*, several Rocks so called, we discerned very distinctly, it being then low Ebb; as also the Lands end. The Wind blew fresh; and we observed the Waves in the Night-time, as if they had been liquid Fire, but paliſh.

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The *Lizard* bearing N. of us, we changed our Course, and taking leave of *England*, we sailed into the Ocean. God of his Mercy send us a happy Voyage.

24. We run this day thirty nine Leagues by a Compute from our Log-line.

25. We were full open with the *Bay of Biscay*. Several *Gulls* were hovering over the Surface of the Water to catch Fish, which swam by in vast sholes, at about 50 Leagues distance from any Land.

At other times I have seen several Birds floating upon the Water, which being driven by some Tempest from the Coasts of *Spain* and *Portugal*, have been tired in their flight, and so drowned. This happens frequently in the great Ocean, where they meet with no Land to fly to in several hundreds of Leagues; and sometimes even in the *Mediterranean*, in the Mid-Seas between the *Christian* and *Barbary* Shores. In blowing Weather, among other Birds flying cross, we saw a Hawk making to our Ship, then under good and swift Sail, which perched upon the round-top of the Main-mast; which one of the Seamen espying, he presently run up the Shrouds, and brought down the Hawk, which made no attempt to fly away, being quite spent. But not long after, the Hawk recovering his Spirits by rest and meat which was given him, took wing and got away from the Fellow, notwithstanding all the care he took to secure his new Adventure, which he hoped to have made Mony of at the next Port that we should come to.

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26. A ſtrong Levant ſtill blowing, and the Sea very rough and boiſterous, the Gale continuing almoſt right a ſtern, we run theſe 24 hours above 70 Leagues.

27. We found our ſelves by our obſervations, that we were in the Latitude of 42 degrees 17 minutes, and began to be very ſenſible of our nearer approach to the South, the Weather being exceſſive hot. In the Afternoon we heard the report of ſeveral Guns fired at about ſeven or eight Leagues diſtance, as we gueſſed. At eight of the Clock at night another Gun was fired ſomewhat near us, which we thought might be from an *Algerine* Man of War, who gave a ſignal to his Conſorts, and who anſwered by ſeveral flaſhes of Powder. Whereupon our Trumpeters ſounded a Point of War, but no return was made. However, the Captain quartered his Men, and the Decks were cleared, and all things made ready in order to a Fight the next Morning; as ſoon as day appeared, we ſaw the Sea clear, no Ships being in view any way: ſo that we concluded that they were Merchant-Ships, with their Convoy, ſtanding to the Northward.

28. Dreadful Lightnings in the Clouds towards the Evening; after which great Dews fell: the Weather extream hot.

29. We ſaw a Pilot-fiſh ſwim by the ſides of the Ship, and ſeveral Bonito's and Albicores playing, as it were with their Heads above Water. The Wind took us ſhort in the night, and ſoon after there was a ſtark Calm; and we had great reaſon to bleſs God for it: For had we continued our Courſe

that

that night, we had either run a-ground, or had been caſt upon the Rocks near to *Peniche* in *Portugal*. The fault was miſ-reckoning, and haling in too ſoon to make the *Southern Cape*: though the Seamen, to ſalve their Credit, and to excuſe their Error, which had like to have proved ſo fatal to us, pretended that we were ſet in by a ſtrong Current. God make us thankful for this great Deliverance.

30. This Morning we were ſurprized to ſee our ſelves within four or five Leagues of the Shore, when we had thought that we had been above twenty. In the Afternoon, the Wind coming on freſh, we weathered the weſtermoſt Iſle of the *Barlings*. On the greateſt of which, being as we gueſſed, above half a Mile in length, the *Portugueſe* have built a Fort to hinder the *Barbary* Pirates from careening their Ships there, or taking in freſh Water. The Land of it very high, and bore off us S. E. by E. By it lie ſeveral Rocks. The other Iſlands are diſtant about a League. I told five of them: the greateſt of which laſt lie ſomewhere inward to the Shore.

For two Nights together about this time (28 and 29) the Sky being very hazy, the Sun ſet in a colour as deep as Blood, which was very aſtoniſhing. We were then in the Latitude of 40.

31. Betimes in the Morning we ſailed by the Rock of *Lisbon*, at ſome diſtance, which was ſcarce diſcernible by reaſon of the cloudineſs of the Weather. Two *Turks* Men of War are now plying to the Windward of us;

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but dare not come up to speak with us, perceiving that we are only laden with Powder and Bullet.

September 1. In the Morning we made Cape *St. Vincent*. I went on Shore with the Lieutenant and several others in our Pinnace, which we drove into one of the Coves; and were forced to climb up a Rock, the ascent of which was very dangerous and troublesome; and made more so by the Rays of the Sun, which were reflected with that vehemence, that the Heat was almost intollerable. Having gained the top, we were met by an Officer and some Soldiers, who had us into the Castle, the middlemost of the three, which are built along that Promontory for the Security of the Coasts, and entertained us with Wine, Grapes, and Marmalade. They told us, that a Squadron of English Men of War sailed by the day before. We here met with two Vessels belonging to *Dartmouth*, laden with Fish from *Newfoundland*, bound for *Alicant*. All along the Coasts, at the distance of about two or three Leagues, are several Watch-towers built to give notice of Pirates.

Becalmed for the most part these two or three days.

5. In the Morning we weathered the Point of *Cadiz*, and came to an Anchor in the *Bay of Bulls*, about half a League from the great *Porgoe*; and in the Afternoon went on shore. We were entertained by the *English* Consul, and carried by him to view the Fortifications, which are esteemed to be as regular as any in *Christendom*; built in the same place where

where the Town had been attacked formerly by the *English*, under the Conduct of the Earl of *Essex* in the Reign of Q. *Elizabeth*. Plays are usually here, as in other parts of *Spain*, acted on a *Sunday*. During the time of our stay, was represented the History of the Patience of *Job*, the Devil brought upon the Stage, tempting *Job*'s Wife in a drolling way, which caused great Laughter and Merriment among the Spectators. At *Malaga*, as the Merchants told us, the *Sunday* before we arrived there, was acted the *Schism of England* in the time of King *Henry* the Eighth, whom the *Spaniards* will not yet forgive, for Divorcing himself from Q. *Catherine*, their Country-Woman.

9. We sailed from *Cadiz*.

10. This Afternoon we were forced to Anchor, not far from *Cape Spartel* or *Sprat*, as the Seamen call it, not being able to weather the Point.

11. This day we came to an Anchor in *Tangier-Bay*, with Sir *Thomas Allen*'s Squadron.

Tangier lies within the Entrance into the *Strait* of the *Mediterranean*, in the Latitude of about 35°, 36'. It is situated in the bottom of a Bay, and is built on the side of the Hill, overlooking the Sea, encompassed with high Walls to the Land-ward, and commanded by a strong Castle. The Heats would be very troublesome but for the Sea-breezes which cool and fan the Air. In the Castle I met with a *Roman* Monument, erected to the Honour of *P. Belius*, a great Officer and Souldier in *Trajan*'s time; who, among his other

other Titles, is there ſtiled, PPO. FIG. MAURITANIAE. TINGITANAE: which ſince has been taken away, and preſented to the Univerſity of *Oxon* by Sir *Hugh Cholmondley*, and now ſerves to adorn the *Area* about the *Theatre*.

The *Engliſh* have two Churches here, (though they only make uſe of one, the other being reſerved againſt all Accidents) both of them very neat and convenient; though not to be compared with the Church of the *Portugueſe*, retained ſtill, according to the Articles of Agreement, when the King of *Portugal* made over the Right and Title, and gave the Poſſeſſion of *Tangier* to the Crown of *England*, by the Canons Regulars, belonging to it, which is very ſtately, and adorn'd with rich Images, and ſupported by Marble Pillars. Toward one end of the *Engliſh* Church, juſt by the Veſtiary, which had been formerly a *Turkiſh* Moſch, and afterward the Chappel of a Convent of *Dominicans*, is a Monumental Stone-Table in *Arabick* Characters, containing an account of the Houſes, Lands, and other Revenues belonging to it, ſet up in the 743 year of the *Hegira*, that is, of Chriſt 1341. The Mole is in good forwardneſs, they having gained above 200 yards in the Sea, in order to the making of a good and ſafe Harbour for Ships to ride in, which lye open to Wind and Waves; the out-ward ſide to the Sea-ward ſomewhat ſloping. The Garriſon is in ſo good a poſture of Defence, that they defie *Taffiletta* and all his Forces. Here we met with great Civilities from Colonel *Norwood*, Deputy-

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Deputy-Governour, and the Gentlemen belonging to the Garrison. Sir *Harry Mildmay* and Mr. *Goodland*, two of King *Charles* the First his Judges, are here; but who have the Liberty of the Town. Now, at our being here, come in several *Moors* from *Arzilla*, and among the rest, the Father of one of *Gayland*'s Wives, to get a Passage for *Algiers*.

Old *Tangier* lyes at some little distance, where they find very frequently in digging several pieces of *Roman* Coin. But for the above-mentioned, and the other Curiosities and Antiquities of *Tangier*, of which I forbear to make mention, from the imperfect and hasty Observations of two days, the greatest part of which being taken up by the Entertainment of our obliging Country-men, you may consult with great pleasure and satisfaction, a little Book called *The present State of Tangier*, written by a very ingenious Gentleman, and printed in the Year 1676.

There is a vast *draught* of *water* poured continually out of the *Atlantick* into the *Mediteranean*, the mouth or entrance of which between *Cape Spartel* or *Sprat*, as the *sea-men* call it, and *Cape Trafalgar*, may be near 7 leagues wide, the *current* setting strong into it, and not losing its force till it runs as far as *Malaga*, which is about 20 leagues within the *Streights*. By the benefit of this *Current*, tho' the wind be contrary, if it does not over-blow, *Ships* easily turn into the *gutt*, as they term the *narrow passage*, which is about 20 miles in length. At the end of which are two Towns, *Gibraltar* on the coast of *Spain*, which gives denomination to the *Streight*,

Streight, and *Ceuta* on the *Barbary* coast: at which places *Hercules* is supposed to have set up his *Pillars*. What becomes of this great quantity of water poured in this way, and of that, which runs from the *Euxine* into the *Bosporous* and *Propontis*, and is carried at last through the *Hellespont* into the *Ægæan* or *Archipelago*, is a curious *speculation*, and has exercised the wit and understanding of *Philosophers* and *Navigators*. For there is no sensible rising of the *water* all along the *Barbary Coast*, even down to *Alexandria*, the land beyond *Tripoli*, and that of *Ægypt*, lying very low, and easily overflowable. They observe indeed, that the water rises 3 feet, or 3 feet and an half, in the *gulph* of *Venice*, and as much, or very near as much, all along the *Riviera* of *Genoa*, as far as the river *Arno*: but this rather adds to the wonder.

I here omit to speak at large of the several *Hypotheses* which have been invented to solve this difficulty: such as *subterraneous vents*, cavities and indraughts, *exhalations* by the *Sun-beams*, the running out of the water on the *African side*, as if there were a kind of circular motion of the water, and that it only flowed in upon the *Christian* shore; which latter I look upon as a meer fansy, and contrary to all observation.

My conjecture is, that there is an *under-current*, whereby as great a quantity of water is carried out, as comes flowing in. To confirm which, besides what I have said above about the difference of tides in the *offing*, and at the *Shore* in the *Downs*, which necessarily supposes an *under Current*, I shall present you with

with an inſtance of the like nature in the *Baltick Sound*, as I received it from an able Seaman, who was at the making of the tryal.

He told me, that being there in one of the *King's* Frigats, they went with their *Pinnace* into the *middle ſtream*, and were carried violently by the *Current*: that ſoon after they ſank a *bucket* with a large *Cannon* bullet to a certain *depth* of water, which gave check to the boats motion, and ſinking it ſtill lower and lower, the *boat* was driven a-head to wind-ward againſt the upper *Current*: the *current* aloft, as he added, not being above 4 or 5 *fathom* deep, and that the lower the bucket was let fall, they found the *under-Current* the ſtronger. I deſigned to have made the *Experiment* in the *Streights-Channel*; but both times I paſt, the Eaſterly wind blew ſo hard, that there was no putting out the boat with any ſafety; nor indeed at thoſe times had we any leiſure for ſuch a *Curioſity*; which thoſe, who liv'd at *Tangier*, might have tryed without any difficulty or danger.

This conjecture, how likely or unlikely ſoever, will ſtand or fall according to the certainty of the *Obſervations*, whih ſhall be made there, which I will endeavour to procure in order to the further eſtabliſhment, or utter overthrow of it.

13. We weighed out of *Tangier* and turned into the *Strait*, though againſt the Wind. The diſtance between *Gibraltar* Cape, which gives name to the *Straits*, and is joyned to the Continent of *Spain* and *Ceuta* a well-built and ſtrongly fortified Town, lying under the Hill *Alybe*, called ſo by the *Greeks*, which

the

the Seaman commonly call, as do some *Spanish* Writers, *Apes-hill*, from the great number of Apes which used formerly to haunt there, (at which places *Hercules* is feigned to have set up his Pillars) may be about six Leagues; tho' both Lands lying very high (for we saw the Clouds much below them) it does not appear in the middle of the Current, out of a tall Ship, scarce half so broad.

14. Little Wind stirring.

15. A great Mist all the Sea over, so that we could scarce see three lengths of the Ship, which began to vanish in the Afternoon; and than we descryed the *Cape of Malaga* at about four Leagues distance; and came to an Anchor that Night. The City lies under a high Hill, and is the Seat of a Bishop, who is at this time a Natural Son of King *Philip* the Fourth, of the Order of St. *Dominic*. Here the Merchants told us, that it had not rained for seven Months together, except a day or two for an Hour: and that the *Algerines*, who were then breaking with us, had not been able to have set a Fleet to Sea about two years before, if they had not been furnished with Masts from *England*; and that they were now in Expectation of another Ship laden with the same, notwithstanding the Rupture, which was as good as began. I only make a Query, Whether *Jews* or *English* Men were the Fraighters?

16. The next Morning the Governour immediately returned our Salute Gun for Gun: soon after we weighed from *Malaga* Road, the Weather very hot. Some Rain fell at Night, though very moderately. In the Eve-

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Evening, after we had ſailed about eighteen Leagues, we were becalm'd. The Sea being quiet, we ſaw a great number of *Tortoiſes* ſwimming above Water, ſeveral *Bottle-noſes*, fiſh of about three yards long, and very thick, and Hawks flying over to the *Barbary* Coaſt. The Hills of *Granada* were ſeen plainly by us, though at a great diſtance.

The Wind coming Eaſterly, we kept at Sea, beating and plying to and again for theſe four days, ſcarce gaining ſixteen Leagues of our way, and were forc'd to come to an Anchor in the *Bay of Adera*, where there is a ſtrong Cittadel, about thirty four or thirty five Leagues from *Malaga*.

21. We paſſed by *Cape de Gata*: but the Levant wind ſtill blowing, having continued almoſt in that Point for above two Months, as we computed from what they had told us at *Tangier*, we could make but little progreſs in our Voyage.

25. Between three and four of the Clock in the Morning the Tornado's began to blow, and the Wind violent for the time, with ſuch continued Flaſhes of Lightning for ſeveral hours, as that the whole Sky ſeemed to be on fire, intermixed with terrible Claps of Thunder, after which followed great ſhowers of Rain.

26. The Wind ſtill contrary, we deſcryed *Cape St. Martin* at about fifteen Leagues diſtance. Tacking about and ſtanding off to Seaward, next Morning 27. we found that we had loſt about three Leagues of our way.

28. We were athwart *Orlando's Gap* within two Leagues of the Shore, *Cape St. Martin* bear-

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bearing off us *N.* by *W.* The Wind now ſtill; but a ſwelling Sea coming from the Weſtward, which is uſual before a Wind, which drives the Water before it.

On *Michaelmas-day* we were up with the Iſland *Ivica*, or *Iviſe*, as the Mariners call it, and the Wind blowing fair, we ſtood our Courſe; and the next day at Noon we made the *Iſland Majorca*, ſituate over againſt the Kingdom of *Valentia*, and came to an Anchor in the *Bay* of the City, being forced in hither for want of freſh Water. In the Afternoon the Boat was ſent on ſhore; but the Vice-Roy would not give us Prattick, not bringing a Patent from *Malaga.*

Octob. 1. The Secretary was ſent with the King's Paſs to the Vice-Roy to demand Prattick, who preſently ſummoned the Officers of the *Sanita.* After long Debates and Delays they conſented, and came to the *Mole* to receive him. He went directly to the Governour to acquaint him, that we were ready to Salute the City with what number of Guns he pleaſed, if he would engage upon his Honour to give us as many. He replied, that he would give us three for five; and wondered, that we being but a ſingle Ship, ſhould make ſuch a Demand. The Secretary told him, That we were to be treated as an Admiral, having a Flag on our Main-top; and that the Governour of *Malaga* had done it. To this he ſaid, That *Majorca* was a Kingdom, that he was the King's Repreſentative, and that by Reaſon of the Miſcarriage of his Predeceſſor, when Monſieur *de Beaufort*, the *French* Admiral was there,

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there, he had received ſtrict Orders from *Madrid* not to do the like. The Secretary replyed, That we had an Ambaſſador on board, and had as ſtrict Orders, and ſhould anſwer as ſeverely for the Breach of them. His laſt Anſwer was, That we might, with our Sails looſe, keep before the Town, till we had furniſhed our ſelves with what we wanted. Upon receiving this Meſſage, the Ambaſſador diſpatched away one *Joſeph Gabriel Cortez*, a *Spaniard*, but employed by the *Engliſh* Merchants trading to that Iſland, then on board our Ship, to acquaint him, That when we were ready to go away, we would looſe our Sails, and not before. We landed within the *Mole*; the Walk upon it about four or five Yards broad; at the Extremity of which is a very large and ſtately Gate, which leads into the City. We went into the great Church, ſomewhat wider than *Weſtminſter-Abbey*, but darkiſh within: the Portal very magnificent, adorned with ſeveral Marble Statues in Niches one over another. The High Altar very plain and unadorned: but others extraordinary rich and glorious. Not far from the City are ſeveral Mills to grind their Olives, Oyl being the great Commodity of the Iſland.

2. The next Morning we weighed, without taking any kind of notice of the Town, ſailing all along in ſight of the Iſland, which preſented us with a pleaſing and delightful Proſpect; the Valleys, lying under the Hills, fruitful of Wine and Corn. The whole Iſland is judged to be about ſixty Leagues in Compaſs, and in length about fifteen: which we

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ſailed from the Weſtermoſt Point, where lies the Iſle *Dragoviera*, at a very little diſtance to the Eaſtermoſt, where there is built a ſmall Fort. To the S. S. E. lie ſeveral little Iſlands, called the *Cabreas*; between which and *Majorca* we ſteered.

3. We were athwart *Port Maon* in *Minorca*; a fine level Country, having but one Hill in it N. W. by W. as it bore off us. In the Evening the Wind very ſcant.

4. This day, as yeſterday, exceſſive hot.

5. In the Afternoon we deſcryed the Main Land of *Provence*.

6. We were over againſt the Iſlands *Hieres* and the Highland of *Thoulon*.

7, 8. Theſe two Days becalmed; and the Sea extraordinary ſmooth.

9. We were over againſt the Weſtermoſt part of the *Alpes*, which we diſtinctly ſaw at about twenty Leagues diſtance, and appeared far higher than the Hills of *Granada*.

10. We ſailed by *Final* and *Ventimiglia*.

12. We came in the Morning to an Anchor over againſt the *Mole*, and not far from the Lantern in *Genoa*. Having obtained Prattick of the *Maeſtri della Sanita*, after a little demur about the Salute, the Senate being aſſembled, and ſome of them proteſting upon their Honours, and ready to produce their Regiſters, that they never ſaluted the Ship wherein was an Ambaſſador of *France* or *Spain*, as not taking any notice of the Perſon who did bear that Character, 'till they had firſt intimation, that the Ship was arrived in their Port by its ſaluting the Town. It was agreed that the Ship ſhould Salute the

Town

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Town with eleven Guns, which they were to anſwer, as they did, with an equal number: and after a little pauſe, they ſaluted the Ambaſſador with nineteen more, which was anſwered with as many. After this, the Duke and Senate ſent the Maſter of the Ceremonies to wait upon the Ambaſſador: who going away, returned ſoon after with a Preſent of Calves, Fowl, Wine, Sweetmeats, *&c.* and acquainted his Lordſhip, that they had deputed ſix of their Gentlemen to Compliment him, and wait upon him; which Civility he thought fit to refuſe, deſiring to be *Incognito.* But however, going aſhore, he was welcomed by the *Illuſtriſſimi Signiori*, the *Durazzo's*, two Brothers, the elder of which had been Ambaſſador for the Republick, in the Court of *England*, and the other at *Conſtantinople*, and by them carried to ſee the *Villas* out of Town. The figure of *Genoa* is Semicircular, beginning from the Lantern Weſtward, lying under an high Hill, upon the riſing of which the ſeveral Houſes, built of Marble, afford a very fine Proſpect, and add much to the Beauty and Glory of the place. *Strada nuova* perchance is the moſt ſtately Street in the whole World. The new Church of the *Annunciata*, built by the *Lomellini*, where a thouſand may go up the ſtairs abreaſt at the ſame time, for curious Painting, rich Altars, and exactneſs of Architecture, incomparable. The *Duome* alſo and the Church of the *Theatins* very ſtately and curious. Other matters I purpoſely omit.

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14. In the Evening we ſet Sail from *Genoa.*

Becalmed for the moſt part theſe three Days, though helped ſomewhat forward by the Breezes that blew off the ſhore after Sun ſet.

18. In the Afternoon we made the Iſland *Gorgonia*, about nine Leagues from *Livorne*; a little round Iſland, with a Gaſtle on the top.

19. In the Morning we came to an Anchor in *Livorne* Road, about a Mile from the Town: the Road large and ſecure, eſpecially to the Northward. The Ambaſſador keeps on Board, the Governour refuſing to Salute the Ship firſt, though he had formerly ſaluted the *French*; pretending that every Convoy might carry a Flag; and alledging that his Maſter, the Grand Duke, was as great and abſolute, as the Republick of *Genoa*: and that they had rather throw themſelves upon the King of *England*, than do a thing which might prove of ſuch an ill Conſequence. Sir *John Finch*, his Majeſty's Reſident, together with Sir *Thomas Baines*, came from *Florence* to Complement the Ambaſſador, and immediately diſpatched away a Courier to the Grand Duke about the Salute; who referred the whole Affair to the Governor: and he making a Proteſt that he was ready to pay all the reſpect which was due to the Ambaſſador's Character and Quality, upon the forementioned Pretenſions, ſix days, after our arrival, abſolutely refuſed to Salute the Ship firſt.

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Livorne is the great Magazine of Trade for the *Levant*, being a free Port: Merchants of all Countries residing here, *Armenians* especially, and *Jews*; which latter enjoy great Priviledges, without wearing any distinct Mark in their Hats or Habits, whereby they may be known. They are allow'd the publick Exercise of their Religion: their Synagogue large and handsome. The Port inward has a *Mole* for the Duke's Galleys and other small Vessels to ride in: the Entrance of which is chained up every Night. Hard by is the Statue of Duke *Ferdinand* in Marble, raised upon an high Pedestal; under which are four Slaves in Brass, in different Postures, very large, and above the ordinary proportion, but done with exquisite and admirable Art. Two Castles to the Seaward well fortified: the Town Walls very high, and the four Gates strongly guarded: below which is a Ditch of about fifteen or twenty yards over, and very deep. No Stranger is allowed to view the Works, nor Souldier permitted to come out of the Castles. About four thousand Slaves are there, as the Merchants told us, who are lockt up in the *Bagno* every Night. The *Piazza*, where the Merchants meet, is adorned with Marble Pillars, which sustain the Portico's: at the East end of which is the great Church whose Roof appears very glorious, having several Circles richly gilded and painted with curious Figures.

The broad Street is paved between two and three yards on each side with Free-stone.

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27. In the Afternoon we weighed out of *Livorne* Road, and sailed by the Islands *Gorgonia* and *Capraria*, seeing *Corsica* at a distance.

28. We lay beating at Sea all this Day, the Wind being contrary.

29. This Day we were forced back, the contrary Winds still continuing.

30. We weighed a second time, and sailed by three small Islands, *Capraria*, *Planasia*, and *Monte Christi*. We saw also *Gigio* and *Sanuti*, two other small Islands near the Main: but we made but little way, by reason of ill Weather for 4 or 5 Days.

Novemb. 5. At Evening we saw the Eruptions of Fire from *Stromboli*, which lies to the N. W. of *Sicily*. Sometimes it flamed very bright Light as a *Beacon*, at other times there appeared only a glorious kind of Light, like that of an ordinary Star when the Air is thick and hazy. They say that it flames most in rainy Weather.

6. In the Morning we were up within a League of it, and plainly perceived it to smoke. It is of a round figure, and, as we gathered, may be about three or four Miles in compass. It bore W. by S. of us. Not far from it lye scattered several other Islands, called by the Ancients *Æoliæ* and *Vulcaniæ*: among which are *Lipara*, a long flattish Island, and *Vulcanello*, which smokes most. This Afternoon we came to an Anchor in eight Fathom Water in the *Phare* of *Messina*, in the mid Stream between *Scylla* and *Charybdis*: a violent and strong Current setting against us, and the Wind not high enough, so as to be

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be able to ſtemm it. The breadth of the *Strait* from *Meſſina* to *Rhegium* may be about a League. The Land is very high on the *Calabrian* ſide, where are very ſteep Rocks, and great depth of Water, above 150 Fathom, as they told us: but on the *Sicilian* ſide, near *Charybdis* Shole-water, and uſually an Eddy. On the Sandy Banks ſtands the Phare or Watch-tower. Several Currents meeting in this narrow Paſſage, cauſe a great ripling of the Water: and great quantity of Water coming in, as the Winds drive, in great quantity meeting with the Shole, is broken into Waves. The Eddies here are cauſed by the meeting of the different Currents by which the Waters are ſometimes carried N. and ſometimes S. the great danger is, leſt they drive the Ship on either ſide. We have had Lightning for ſeven or eight Nights together.

7. We ſail'd by *Ætna*, now called *Mongibel*, where the Sea widens ten or eleven Leagues over. Now we ſee plainly the Smoke briskly iſſuing out of the *Crater*, the *Limbus* of which was all black. The uppermoſt part of the Mountain was covered with Snow, except ſome ſtreaks of Aſhes, as we judge, which lie as it were in a Gutter, ſpread here and there.

8. We eſpied a *Saettia* at about 3 Leagues diſtance, and making up to her, found her forſaken. The Captain ſent ſeveral Sea-men on board, and carryed the Veſſel to *Smyrna*.

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Scanty Wind for ſeveral Days: and the Lightning ſtill continued.

13. We were up with *Cape Modona*, the Southermoſt Cape of the *Morea*, and ſailed by *Coron*. The Land very high, the Hills of *Arcadia* lying Eaſtward from us. The Weather exceſſive hot at this time, as it is in *England* at *Midſummer*. We eſpied from our Maintop-maſt five Sail of great Ships, which we ſuppoſed to be *Tripolines*, who did not think fit to come up and ſpeak with us. But afterward we heard for certain, that they were part of the *Venetian* Fleet.

14. We lay for the moſt part becalmed over againſt *Cape Matapan:* but in the Evening the Wind blowing freſh, we ſailed between the Iſland of *Cerigo* and the Main Land of *Greece*; it being about three Leagues over to *Cape Angelo*.

15. We entred the Arches, and ſteered through the North Channel, leaving *Melo* and *Antimelo* on the Starboard-quarter, at ſome Leagues diſtance.

16. Betimes in the Morning we were athwart *Negropont*, and ſailed between it and *Andros*. The *Bocca* lies S. W. and N. E.

17. We ſailed by *Chios* or *Scio*, which is very mountainous toward the middle. It is about four Leagues diſtant from *Cape Caraboroun*, or the *Cape of the black Noſe*, as the *Turkiſh* word ſignifies, which the Seamen, in their uſual way of corrupting Names, call *Cape Jobbernoule*, the *Corinæum* of the Ancients, a Promontory of the famous Mountain *Mimas*, which runs along the Southern ſide of the *Bay of Smyrna*.

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This Day the *Smyrna* Fleet from *England* comes up to us very luckily, to our great Satisfaction and Joy.

18. We are now got into the *Bay of Smyrna*, and come to an Anchor without the Castle, not far from St. *Jacomo's Point*, as the Seamen call it, or rather *Sangiac Point*. In the Afternoon the Consul, with several Gentlemen of the Factory, came to wait upon my Lord Ambassador, and desired his Lordship to defer his Entrance into *Smyrna* till the Twentieth, that he might be received with greater Honour. That Evening we heard a great howling of *Jackalls* upon the Hills.

20. The Consul with the Nation, accompanied with his *Druggermen* and *Janizaries* in their *Habit*, together with several *French*, *Duth* and *Geneose* Merchants, residing in that famous Emporium, came to the Village near the Castle, who there expected us with Horses. Upon our going ashore, the *Leopard* fired fifty one Guns. We made about 140 Horse; and immediately upon our setting forth, we rode for about three Miles together under the Hill to the S. W. of *Smyrna*; the places adjoyning set thick with Olive, Fig, and Almond-trees. Afterwards we clambered over some rocky Ascents; but the Horses of the Country being sure-footed, we were in no danger of falling. Some little way we were forced to ride on the Sea-shore, and soon after came to the Jews burying place, whose Monuments lie flat upon the ground. As soon as we entred into the City, we found the Streets full of *Greeks*, *Armenians*, *Turks*, and

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and *Jews*, whom Curiosity had drawn together to see and observe our Cavalcade; the *English* Ships, which were in the *Bay*, firing their Guns, as we past near the Shore. And so after three hours riding the Ambassador was brought to the Consul's House, where Lodgings were provided for him. During our stay we met with not only kind, but very noble Entertainment from the worthy Gentlemen of the Factory.

Decemb. 8. We took our leave of *Smyrna*, being accompanied by the Consul and Merchants on board the *London-Merchant*, Capt. *John Hill* Commander, the *Leopard* being ordered to go no further than *Smyrna*, it being feared in *England*, that if she had sailed up to *Constantinople*, the *Turks* might have press'd her for their Service in *Candia*, which they were then besieging.

9. This Morning we weighed betimes, and sailed between *Scio* and *Mytilene*. But on the

10. We were forced back near the long Island within the Bay, being unwilling to go to *Scio*, the *Tripolines* and *Turkish* Galleys lying there. Here we lay ten Days, expecting a fair Wind.

20. The Wind coming about and favouring us, we sailed a second time between *Scio* and *Mitylene*.

21. We past by *Lemnos*, and were up with the Island *Tenedos*; a fine Champaign Country, only with one Hill toward the middle of it. The Castle to the N. E. part of the Isle: over against which lye three small Islands in a strait Line. Here we came to an

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Anchor. We ſaw the Ruins of *Troas* at a diſtance, but did not think it ſafe to go aſhore.

22. The Wind coming about at S. we entred the *Helleſpont*, which may be about two Leagues and a half over. The Caſtles built upon the oppoſite points of Land, about 11 or 12 Years before, after the great Defeat given the *Turkiſh Armata* at the *Dardanels* by the *Venetians*; *Cape Janizary* on the *Aſian* ſide; which, with the *Philæum*, makes a tolerable good Bay for ordinary Veſſels. The narroweſt Strait of the *Helleſpont* is at the two other Caſtles, diſtant about ſix Leagues, where it may be about $\frac{1}{4}$ of a Mile wide. Theſe the *Chriſtians* call the *Dardanelli*; at which are ſituate the Towns, *Seſtus* and *Abydus*, famous in *Greek* Poeſie. Theſe Caſtles we ſaluted with our Guns and Trumpets, as we did the firſt: but each, whether out of Pride, or out of Covetouſneſs, to ſave the *Grand Signior*'s Powder, return'd us no more than two Guns. The Wind blowing very fair we ſailed into the *Propontis*.

23. We paſſed by St. *Stephano's Point*, where we had a full view of the S. E. Angle of *Conſtantinople*, which being ſituated upon ſeveral Hills to a mighty advantage, what with the Cypreſs-Trees intermixed, and what with the gilded Spires of the *Moſchs*, yielded us a very diverting glorious Proſpect. Paſſing by the *Seraglio Point*, which we ſaluted by a diſcharge of ſeveral Guns, in the mid Stream between it and the *Tophana*, we came to au Anchor.

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26. On St. *Stephen's* Day the Ambaſſador landed at *Galata*, (having before been viſited by the Earl of *Winchelſea*, and the Merchants reſiding there) and was received there by the *Chiaus Baſha* and the *Vaivod* of *Galata*, the *Janizaries* and *Chiauſes* attending, and was waited upon by them to his Palace: and ſoon after the *Kaimacam*, or Governor of *Conſtantinople*, ſent an Officer to Complement him upon his Arrival; the *Grand Signior* being then at *Lariſſa* in *Theſſaly*.

January 2. The Ambaſſadors, Old and New, went over to *Conſtantinople*, that Morning being aſſigned by the *Kaimacam* to give them Audience; the *Chiaus Baſha* and other Officers attending at the Water-ſide to receive them; Horſes being brought thither for them and their Followers to mount. This *Kaimakam Yuſuph*, a little old Man, had formerly been a Page of the Chamber, and chief Falconer, and afterwards *Baſha* of *Siliſtria*. He entertained the Ambaſſadors and their Company with Perfumes, Coffee, and Sherbet, and diſtributed about fifteen *Koſtans Orreſts* among them: after about an Hours ſtay they took their leave.

Being upon the Coaſts of *Greece* about *Auguſt* or *September* 69. in the Latitude of 35°. 53′. we found by our *Azimouth* Compaſs, that we had Weſterly variation there 5°. 22′.

The variety of Colours of the Sea-Water at ſeveral times chiefly depends upon the Wind and Weather, and the reflexion of the Light upon it. It's uſual and moſt natu-

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natural Colour is a deep Green: but in Cloudy and Rainy Weather, the Surface of the Water appears blackish. On the *Goodwins* upon the Tide of Flood, the Water was white, the Waves by reason of the Shallows, meeting with opposition, and breaking into Foam, till the Flood is well advanced. Sometimes the Water is of a perfect Azure colour, as we observed for several Weeks in the *Mediteranean.* The Sun shining bright upon the Water, sometimes the upper part of the Waves appears Purplish, sometimes Reddish; though in Shallows perchance it may receive this latter Tincture also from the Sands which lie under it. When the Wind has freshned, and the Ship has been under full Sail, I have observed the Waves to the head, and at the sides of the Ship, to appear with a pale kind of brightness: and at *Malaga*, and at my return, going on board our Ship, which lay about half a League from the shore, at Night, the Wind then at East, the Boats Crew letting their Oar fall roughly into the Water, diverted us as it were with the sight of a continued Flame, raised by their rowing; which I ascribe rather to the Saline Particles of the Sea-Water, which were then put into a violent Agitation, than to the Spawn of Fish, as some of our Company imagined.

Sailing toward the West of *Portland*, we saw several *Porpisces* playing with their Heads above Water; which I mention only, because the Seamen look upon them as fore-runners of a Storm; the Wind soon after

after blowing very hard at North by East. And afterwards arriving at *Constantinople*, the Wind blowing a stiff Gale at North, I observed with a pleasing kind of astonishment good part of the *Propontis*, that is, from the *Seraglio Point* toward the Islands, which lye against the *Bay of Nicomedia*, Eastward and South-East from us, as far as we could see, covered as it were with *Porpisces*, which appeared every where in great abundance. So that I am very apt to believe that *Julius Solinus* in *Chap.* 12. of his *Polykister* is to be understood of *Porpisces*, and not of *Dolphins*, now properly so called, though that be his Word, speaking of the *Bosphorus* and *Propontis*: *Hæc profunda Delphinas plurimos habent*: and soon after, *ante omnia nihil velocius habent maria, sic ut plerunque transvolent vela navium.* I could not hear that any *Dolphins* are caught in those Seas by the *Greeks*, whose Poverty, added to the love which their Nation has for Fish, and the advantage arising thence, upon the account of their solemn Fasts and Abstinences from all Flesh, even to a wonderful strictness and scrupulosity, has made them excellent Fishermen: nor did I ever see any in their Fish-Markets, or see one of them brought to the Ambassador's Table by the Providetor for curiosity: Though otherwise it is an excellently well tasted Fish, especially when souced. I allow, that they will swim very swiftly, as do the *Porpisces*; and that they will follow a Ship for several Leagues together: but then they Swim somewhat deep

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in the Water, sometimes are catch'd, though not often. The Seamen have reached them with a Fisgig, a kind of barbed Iron, at the End of a Pole tyed fast to a Rope, and have made good Chear with them. But this is only my Conjecture, with which I end my Journal.

Deo Servatori Laus.

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Historical Observations relating to Constantinople. *By the Reverend and Learned* Tho. Smith, *D. D. Fellow of* Magd. Coll. Oxon. *and of the* Royal Society.

Constantinople, formerly *Byzantium*, was [a] by *Constantine* the Great, called so after his own Name, who being mightily pleased with the beautiful and advantagious situation of the Place between two Seas, and defended by narrow Streights on both sides, removed the Seat of the Empire hither, and laid the foundation of its future Splendor and Greatness. It was also by a [b] special Edict or Law of the same Emperor, which he caused to be engraven on a Marble Pillar, placed near his own Statue on Horseback, in one of the Piazza's of his new built City called *Strategium*, where the Soldiers u-

a Κατὰ τ̀ ἐπώνυμον ἡμῖν πόλιν. *So the Emperor* Constantine *in a Letter to* Eusebius. de vita Constantini. *lib.* 4. *cap.* 36. & apud Theodoritum Histor. Eccles. *lib.* 1. *cap.* 16. *v.* etiam Socrat. Scholast. Hist. Eccles. *lib.* 1. *cap.* 16.

b V. Socratem ibidem. Et Theophanem in Chronographia XXV. anno Constantini.

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used to Muster, as in the *Campus Martius*, called *second or new Rome*, in emulation of old *Rome*, which he designed and endeavoured this should equal in all things. Accordingly he endowed it with the same Priviledges and Immunities, and established the same number of Magistrates and Orders of People, and divided the whole extent of it into fourteen Precincts or c Regigions, according to the division of *Rome*. And the *Greek* Writers were as elegant and extravagant in their commendations of it; but the usual Title in their ordinary Discourses and Writings, when they had occasion to mention it without any flourish, was ἡ βασιλεύουσα, ἡ βασιλὶς, that is, the Imperial City, to the same sense with that of d *Sidonius Apollinaris*,

Salve sceptrorum columen, Regina orientis,
Orbis Roma tui.

The Country about it was afterwards called *Romania* in a limited and restrained sense, (for that *Romania* was anciently the same with *orbis Romanus*, seems clear from e *Epiphanius*) and the People Ῥωμαῖοι. But I suppose

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c *The* Italian *Word* Rione *is a manifest corruption of the* Latin *Word.*

d In Panegyrico, quem Romæ dixit Anthemio Augusto, bis Consuli.

e Hæresi LXIX. quæ est Arianorum. Sect. 2. *where he says a sad dismal Fire was kindled by* Arius; πῦρ ἐ τὸ τυχὸν ὃ κατέλιπε πᾶς ἡ Ρωμανίαν σχεδὸν, μάλιστα ἡ ἀνατολὶς τὰ μέρη, *which seized almost upon all* Romania, *or* Universum Romanorum imperium, *as* Petavius *renders it, but especially the Eastern parts of it.*

this was not done till about the middle times of the Empire, when it began to decline. The *Greeks* ſtill retain this Name. For if you ask any of the *Greeks* born upon the Continent of *Thrace*, what Country Man he is? he anſwers forthwith, Ρωμαῖος *Romios*, for ſo they pronounce it. The *Turks* in like manner call a *Greek* Chriſtian *Urum Gaour*, or the Roman Infidel, as they will call ſometimes the Emperor of *Germany*, *Urumler Padiſha* or Emperor of the *Romans*. Hence it was, that the latter *Grecian* Emperors ſtiled themſelves βασιλεῖς Ρωμαίων, Kings of the Romans, that is, ſuch as were Born in *Romania* and the other Countries, which made up the Eaſten diviſion of the Empire. Tho' perchance by this flouriſhing Title they pretended a right to the Governmenment of the Weſt: Upon which vain preſumption they aſſumed alſo the Title of Κοσμοκράτορες, or Emperors of the World, as if they had been the true Succeſſors of *Auguſtus*, and the Weſtern Emperors, Uſurpers, whom they called by way of contempt and indignation, Ρῆγες, Reges, as [f] *Luitprandus* informs us in the accompt of his Ambaſſy to *Nicephorus Phocas*, and afforded the People of *Italy* no other Titlethan that of [g] *Longobards* or *Lombards*. The preſent *Greeks* call all the Weſtern Chriſtians Λατῖνοι or φράγγοι *Latins* or *Franks*, the *Turks* only making uſe of the latter, when they ſpeak civilly of us, and calling *Chriſtendom Phrenkiſtan*, in the preſent *Greek* φραγγία. The *Turks* now as proudly call *Conſtantinople Alem pena*, or the refuge of the

[f] Pag. 144, 152, 153. [g] Pag. 139.

World;

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World: Where indeed seems to be a medly of all or most Nations of three parts of it, and of all Religions, which are allowed to be publickly profest and exercised every where throughout the Empire, except the *Persian*. For they look upon it as a corruption of, and deviation from the Rules and Doctrine of *Mahomet*, their great false Prophet, and therefore absolutely forbid it, as repugnant to, and destructive of the Doctrine of Life and Salvation, as they speak. And accordingly they condemn with all imaginable fury the Professors of it, who pretend to follow *Ali*, as Sectaries and Apostates, and entertain worse Opinions of them, than of *Christians*, or *Jews* or *Infidels*. The *Persians* are not behind-hand with them in their hatred and disrespect, deriding them as gross and stupid, and looking upon them as little less than barbarous; Interest and Zeal for their several Tenets heightning their differences so much, that in time of War they destroy one anothers *Moschs*. I remember, that there was a great Discourse in *Constantinople* among the *Turks* concerning an impudent hot-headed *Persian*, who publickly in the new *Mosch* built by the Mother of the present Emperor, asserted that *Ali* was equal to *Mahomet* But it seems he very luckily made his escape out of their Hands, at which the Priests and the more zealous *Turks* were very much scandalized.

The *Greeks* have twenty six Churches within the Walls of the City, besides 6 in *Galata*, of which I have given an Account elsewhere. They have also two Churches at *Scutari*, one

at *Kadikui* or *Chalcedon*. So at *Stauroſis*, *Chingilkui*, and ſeveral other Villages upon the Aſian Shore off the Boſphorus, as at *Beſhictaſh*, *Ortakui*, *Chorouch cheſme*, which Church is dedicated to St. *Michal* the Archangel, *Jenikui* or *Neochorion*, *Therapia*, *Bujukdere*, and other Villages on the *European* ſide. They have alſo a Church at *Haskui*, where is their Burying place, and another near the *Bagnio*, dedicated to St. *Paraſceve*. And at *Tatoula* about a Mile from *Pera*, upon a Hill, which from the Name of the Church is thence called by the *Greeks* and *Franks*, St. *Demetrius* his Hill. Next to the holy Virgin, St. *Demetrius* and St. *George* have moſt Churches dedicated to them.

The *Armenians* have not, if I remember aright, above ſeven Churches; they being few in number in compariſon of the *Greeks*.

The *Jews* may have in the City and places adjacent between twenty and thirty Synagogues, this being the greateſt ſhelter of that accurſed and contemptible People in the Grand Signiors Dominions, next to *Caire* and *Saloniki*: and I believe there may be about twenty or thirty thouſand families of them. They are of great uſe and ſervice to the *Turks*, upon accompt of their Brocage and Merchandiſe, and Induſtry in ſeveral mechanical Trades. All theſe I look upon as Natives, or Slaves rather, each paying mony for his Head every year. The *Jews* indeed very wiſely collect this Tax among themſelves, and according to an agreement made with the *Teſtardar* or Treaſurer, pay a certain ſum in groſs for their whole Nation reſiding there: by which piece of

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of cunning they are great gainers, and ſpare the poor among them leſs able to pay, by a contribution of the rich to make up the ſum. The *Engliſh* and *Dutch* Ambaſſadors have their Chappels in their Palaces common to their reſpective Nations.

The Churches and Chappels of the Weſtern *Chriſtians* of the *Roman* Communion in *Galata*, are

St. *Peters*, belonging to the *Dominicans*, where is the famous piece of *Madonna di Conſtantinopolis* as the *Italians* call it, or of the bleſſed Virgin, holding the holy Child *Jeſus* in her arms: which they pretend to be drawn by the hand of St. *Luke*, celebrated by ſome of the latter Eccleſiaſtical Writers to have been a famous Painter. Out of reſpect to this idle tradition the credulous and ſuperſtitious *Latins* and *Greeks* of the *Roman* Communion ſhew great veneration to it, which otherwiſe hath little in it of proportion, art, or beauty, to derive any reputation upon the deſigner, or upon his work.

St. *Francis*, belonging to the *Conventuali*, Fryars of the order of St. *Francis*; the ground of this by the wiſe conduct and interceſſion of *Caviliere Molino*, the Venetian *Bailo*, after the ſurrender of *Candia*, upon the Peace made by the Republick with the Grand Signior, was procured to be reſtored, and a handſome Church rebuilt with the large contributions of mony ſent out of *Chriſtendom*.

St. *Benedict*, belonging to the *Jeſuits*, where is a rich Altar curiouſly adorn'd with ſeveral figures in *Moſiack*. This Convent was purchaſed for them by their great Benefactor, *Henry* the fourth of *France*.

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St. *Mary*, belonging to the *Observantines* or *Zoccolanti*, a branch of the order of St. *Francis*, so called from their going in *Zoccoli* or wooden clogs.

The *Capuchines* have a little Chappel dedicated to St. *George*, hard by the *French* Ambassadors Palace.

St. *Ann*, a Chappel frequented by the *Perotes*

St. *Paul* and St. *Anthony*, were both taken away some years since from the *Christians*, and turned into *Moschs*. The former of which is now known by the name of *Arab Giamesi*, or the Mosch of the *Arabians*. Our Interpreters mentioned also to me the Church of St. *John*, which the *Turks* have seized upon for their use, St. *George*, which the *Jews* are possest of, and St. *Sebastian*, which was used to be visited chiefly on Holy days.

The North-wind blows for the most part at *Constantinople*. Which must be ascribed to its nearness to the *Euxine* Sea, which bears that point from it. So that for want of a Southwardly wind Ships have been forced to lye a month or two sometimes near the mouth of the *Hellespont*. This was taken notice of long since by *Eunapius* in the life of *Ædesius*, who ascribes the seldom blowing of the *South* wind to the situation of the mountains, whereas it is checked and overpowered by the exuberance of the Vapours continually sent forth from the *black* and *great Sea*, as the *Greeks* call it in comparison of the *Mediterranean*. *Vide ad finem Codini de origin. Constantinopol. Edit. Paris. pag.* 80.

The *Hellespont* is about forty miles in length, and

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and at the Caſtles of *Seſtos* and *Abydos* the ſtreight may be about three quarters of an Engliſh mile over, or leſs.

The length of the *Propontis* is about a hundred and fifty miles, both ſhores may be ſeen in the middle of it. In it are,

Cyzicus, an Iſland near the *Aſian* ſhore, to which it is joined by two bridges. It ſtill retains its ancient name Κυζικὸ, and is the ſeat of a Biſhop, being inhabited by a conſiderable number of *Greeks*.

Proconneſus, not far from the former; now, as for ſome centuries paſt, called *Marmora*, from the excellent quarries of Marble there found, the marmor *Cyzenicum* alſo being famous in the time of *Pliny*.

Besbychus, now called by the *Greek* καλὸλιμνο, or the good haven, not far from the entrance into the bay of *Montanea* to the North and by Eaſt. The *Turks* call it *Imralme*.

There are ſeveral Iſlands over againſt the bay of *Nicomedia*, formerly called *Sinus Aſtacenus*, according to *Strabo*, about ſix or ſeven leagues from *Conſtantinople*. g

Prote, ſo called becauſe they approach firſt to it, coming from *Conſtantinople*; to the South of this *Prencipe* and *Pytis*, which I take to be the ſame with *Pyrgos*, that lyes inmoſt toward the bay: *Chalcitis*, in modern Greek, *Chalce* or *Chalcis*. *Oxia* and *Platy* to the North-weſt. I have expreſſed the *Turkiſh* names of the leſſer and uninhabited Iſlands elſewhere, which perchance were phantaſtically impoſed by ſome *Franks*.

The *Seraglio* is at the extreme point of the North-eaſt Angle of *Conſtantinople*, where

g. v. Gillium de Boſp. Thracio lib. III. cap. 12. &c.

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formerly stood old *Byzantium*, within which towards the Haven is a stately *Kiosk* or summer house, from whence the *Grand Signior* usually takes Barge, when he passes into *Asia*, or diverts himself upon the *Bosphorus*, at which time the *Bostangi Bashi*, who hath the principal care of the Emperors palace, and hath the command of the *Bosphorus*, sits at the helm and steers.

The seven Towers are at the South-east extremity.

The only Suburbs are to the North-west, along the Haven-side; for above the hill, where the three walls begin, lies an open champaign Country, except that here and there at considerable distances farm houses are scatter'd.

The Haven runs in from the West, and so opens East.

At the East end of *Galata* is *Tophana*, where they cast their great Guns.

Pera and *Galata* have about six gates to the Seaward. The whole tract of ground was anciently, before the times of the Emperor *Valentinian*, who enclosed and fortified *Galata* with walls and towers, styled Περαία or Regio *Perea* being πέραν τ̃ πόλεως, on the other side of the City to the North, which is the reason of its name, seated on higher hills, and whose ascent is more steep and difficult.

Our modern *Geographers*, such as *Mercator* and *Ortelius*, who herein follow *Ptolomy*, place *Constantinople* in the Latitude of 43. degrees and 5 minutes: the *Arabian* and *Persian Astronomers*, as *Abulfeda*, *Nassir Edin*, *Vlugh Beigh*, and so the τείχεσι κανόνες, *Chrysococcas* translated

ted out of the *Persian* tables, place it more Northerly in 45. But by latter and better observation it is found, that they have erred in assigning the Latitude of this City, as of several other places. To salve these differences, there is no just ground of pretence to say, that the *Poles* are moveable and have changed their situation since their time, whereas it may better be imputed to their want of due care, or to their taking things upon trust, from the reports of *Travellers* and *Seamen*, not having been upon the places themselves: which certainly is to be said for *Ptolomy* whose observations, as to places more remote from *Alexandria*, are far from being accurate and true. The learned Mr. *John Greaves*, as I find in a Manuscript discourse, very worthy of being Printed, which he presented to the most reverend and renowned *Arch-bishop Usher*, took the height of the *Pole* at *Constantinople* with a brass sextant of above 4 feet *radius*, and found it to be but 41 degrees 6'. but by the observation we made in our Court-yard at *Pera* with a very good *Quadrant* we found it but 40 degrees and 58 minutes of North Latitude.

There is no place between the *Propontis* and the walls of the City, except just at the Seraglio-point, which may be two hundred paces in length; where they have raised on a platform a battery for Great guns; but from the point to the end of the Haven West, the space to the gates is unequal in some places about twenty paces broad, in others three or four times as many more.

The distance between *Constantinople* and *Chalcedon*

cedon upon the opposite *Bythinian*-shore may be about three or four miles.

In the Walls are engraven the Names of several Emperors, who reigned toward the declension of the *Grecian* Empire, as *Theophilus*, *Michael*, *Basilius*, *Constantius Porphyrogenitus*, by whose care, and at whose expence the several breaches caused in them by the Sea or by Earth-quakes, were repaired.

Kumkapi or the sand-gate lies toward the *Propontis*; this the *Greeks* call in their vulgar language Κονδοσκάλι, *Contoscalium*, or the little scale or landing-place. Here formerly was an Arsenal for Gallies and other small vessels; it being a convenient passage over Sea. Over this Gate was anciently engraven a curious Inscription still preserved in that excellent collection published by [h] *Gruterus*.

Jedicula Kapi, or the Gate of the seven Towers, so called from its nearness to that *Acropolis*, is that, I guess, which the *Greeks* formerly called χρυσῆ or the Golden Gate, and by some late *Latin* Writers *Chrysea*, in *Luitprandus*, *Carea*, by a mistake either of the Transcriber or Printer, for *Aurea*, for so certainly it must be mended. Over this Gate was this inscription,

Hæc loca Theudosius decorat post fata Tyranni,
Aurea secla gerit, qui portam construit auro.

cited by *Sirmond* in his notes upon [i] *Sidonius*. This Gate is in the twelfth Region, and was

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[h] Pag. 169. Num. 3. [i] Pag. 121.

also

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also called ὑδρία from its beautiful and curious structure.

The Gun gate formerly called Roman gate, not because it leads towards the continent of *Romania* or *Thrace*, but from [k] St. *Romanus*, where the last Christian Emperor was killed at the assault which the *Turks* made to force their Way into the City by it.

Near *Adrianople* gate is a fair large *Mosch* called *Ali-bassa*, upon a hill accounted the highest in the City.

The distance between tower and tower in the upper wall to the landward may be about ninety of my paces; the space between that and the second wall about eighteen paces over.

The place, where the *Lyons*, *Leopards*, and such like wild creatures are kept, (where I saw also several *Jackalls*) was formerly, as the *Greeks* told me, a Christian Church dedicated to Παναγία or the Blessed Virgin, where this Verse is still legible,

Κατὰ Σκυθῶν ἔπνευσας θερμὸν ἐν μάχαις.

There is no tide or running back of the water on any side of the *Bosphorus* into the black Sea, as [l] some have imagined, whose mistake might possibly arise hence, that the wind being at North, and blowing hard, the current sets more violently at such times against the several headlands jetting out into the channel, which admits of several turnings, and

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[k] Vid. Historiam Politicam Constantinopoleos apud Crusium in Turco-Græcia, pag. 9.

[l] This was an old error; for thus writes Dionysius Byzantinus in his little Book of the Bosphorus. Τὸ ῥεῦμα τὸ μὲν πλεῖον κατιόντος ἐστὶ δ' ὅτε κατ' ἐπικράτειαν ἀναῤῥέοντος.

so

so the waters are forced back to some little distance: or else because when the South-wind freshens and grows boisterous, it makes a high rolling Sea in the *Propontis* and *Bosphorous*, and being contrary to the current, gives a check to it, so that it becomes less sensible, and is easily stemmed. Where it is narrowest, the distance seems to the eye to be scarce a mile over from one shore to another; where broadest, not much above a mile and a half, unless where it runs into the deep Bays, which by reason of their shallowness only harbour Boats.

The channel certainly is natural and not cut by art, as some have idly fansied, not considering, how the *Euxine* Sea should discharge it self otherwise of those great quantities of waters, poured into it by the *Ister* and *Tanais*, now called *Don*, and the other Rivers, whereby it becomes less salt, even very sensibly to the tast, than several parts of the *Mediterranean*.

The Fish, by a strange kind of instinct, pass in vast shoals twice a year, Autumn and Spring, through the *Bosphorus*, that is, out of one Sea into another; of which the *Greeks*, who live several months of the year upon them, take great numbers, and supply the markets at easie rates; the Cormorants and other ravenous water-fowl, which the *Turks* will not suffer to be destroy'd or otherwise molested, preying upon them.

The weather in some months is very inconstant, great heats and colds happening the same day upon the change of the wind.

The winters at *Constantinople* are sometimes extraordinary severe. I have heard it related by several old *Greeks*, as a thing most certain that

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that the *Boſphorus* was frozen over in the time of *Achmed*, and that a Hare was courſed over it. It hapned thus, that upon a thaw huge cakes of Ice came floating down the *Danube* into the black Sea, and were driven by the current into the *Boſphorus*, where upon the return of the froſt, they were fixed ſo hard that it became paſſable. In the year 1669 there was Ice in the Haven to the great amazement of the *Turks*; and ſome were ſo frighted at this unuſual accident, that they look't upon it as a diſmal prodigy, and concluded, that the World would be at an end that Year. The *Aguglia* or *Obelisk* in the *Hippodrome* is betwixt fifty and ſixty Foot high.

The Hiſtorical Pillar in *baſſo relievo*, raiſed in honour of the Emperors *Arcadius* and *Honorius*, may be in height about an hundred ſeven and forty feet.

Alexius Comnenus lies buried in the Patriarchal Church againſt the wall, and his daughter *Anna Comnena*, the Hiſtorian, who lived about the year of Chriſt 1117. They pretend to ſhew there the reliques of St. *Anaſtaſia*, who ſuffered Martyrdom under the Emperor *Valerianus*, and of St. *Euphemia*, Virgin and Martyr, who loſt her life moſt gloriouſly for *Chriſt's* holy religion at *Chalcedon* unde *Diocleſian*.

In *Sancta Sophia* there are pillars ſo great, that a Man can ſcarce fathom them at twice. At the end of the Gallery, that joins the other two, each about thirty of my paces wide, there is a piece of tranſparent Marble, two or three Inches thick. In the North gallery upon the Pavement is a reddiſh ſort of a Marble

ble Stone, brought, as the *Turks* and *Chriſtians* relate, from *Paleſtine*, on which they Fable, that the bleſſed Virgin uſed to waſh the linnen of our Saviour.

I obſerved but one ſtep from the Body of the Church to the *Bema* or place where the Altar formerly ſtood.

The great *Moſch* at *Chaſim-baſſa* on *Pera* ſide to the Weſt, was formerly a Church dedicated to St *Theodoſia*.

Gianghir, a Moſch ſo called, upon a hill at *Fondaclee* near *Tophana*.

In *Conſtantinople* there are ſeveral narrow ſtreets of Trade, cloſed up with ſheds and pent-houſes, which I ſuppoſe were in uſe before the *Greeks* loſt their Empire, and are the ſame with the στενωποὶ καὶ φραχτοὶ δρόμοι in *Chryſaloras* his[m] Epiſtle. But beſides theſe places, ſeveral Trades have their diſtant quarters. The ſtreets are raiſed for the moſt part on each ſide for the greater convenience.

[m] Pag. 119.

Not far from *Suleimania* is the houſe of the *Aga* or General of the *Janizaries*, which ſo often changes its Maſters.

Pompey's pillar, as the *Franks* erroneouſly call it, is of the *Corinthian* order, curiouſly wrought, about eighteen foot in height and three in Diameter.

Beſhiktaſh, a Village within three or four miles of *Conſtantinople* towards the *Boſphorus*, where lies buried the famous Pyrate *Ariadin*, whom the *Chriſtian* Writers call *Barbaroſſa*, who built here a handſome Moſch, having two rows of Pillars at the entrance. The Captain *Baſſa* uſually, before he puts to Sea with

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with his Armata of Gallies, visits the Tomb of this fortunate Robber, who had made several thousand *Christians* Slaves, and makes his Prayers at the neighbouring Church for the good Success of his expedition.

They reckon in the City above a hundred publick Baths, every street almost affording one. They are esteemed works of great Piety and Charity; there being a continual use of them, not only upon the accompt of Religion, but of Health and Cleanliness. For their Diet being for the most part hot spiced meats in the Winter, and crude fruits in the Summer, their Liquor Fountain Water, or Coffee, to which we may add their lazy kind of Life (for walking is never used by them for digestion, or otherwise in the way of diversion) frequent bathing becomes necessary.

There are several receptacles of Water under Ground, and one particularly under the Church of *Sancta Sophia*, as I was informed; but I did not think it worth my curiosity to descend into it. These were of great use to the poor *Greeks* in the last fatal Siege; but the *Turks* are so secure, that they do not think, that they deserve either cost or pains to keep the Waters sweet, or the cisterns in repair.

The *Aqueducts*, which answer to those glorious *Aqueducts*, near *Pyrgos*, and convey the water to the great cistern near Sultan *Selim*'s Mosch, are in that part of *Constantinople*, which lies between the Mosch of *Mahomet* the Great and *Shaxade*.

The *Turks* began to besiege *Constantinople* on the fifth of *April*, and took it the twenty ninth of *May* on *Whitsun Tuesday* morning 1453. or as the *Turks* reckon in the year 857. of the *Hegira*

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Hegira, or flight of *Mahomet*, the 22 day of the firſt *Jomad*.

The Chappel, where *Ejub Sultan* is interred, at whoſe Head and Feet I obſerved great wax Candles, is encloſed with latten wire Grates, for the better accommodation of ſuch religious *Turks* as come to pay their reſpect to the memory of this great *Muſulman* Saint. In the middle of the Area there is raiſed a building ſuſtained by excellent marble Pillars, aſcended by two ſeveral pair of ſtairs, where the new Emperor is inaugurated, and where he uſually goes in *Biram*-time.

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1. *An*

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An account of the City of Pruſa *in* Bythynia, *and a continuation of the Hiſtorical Obſervations relating to* Conſtantinople, *by the Reverend and learned* Thomas Smith *D. D. fellow of* Magd. Coll. Oxon. *and of the* Royal Society.

Montanea formerly called *Nicopolis* according to *Bellonius*, or rather *Cios*, the bay hence called *Sinus Cianus*, lies in the bottom of a Bay about Fourſcore miles from *Conſtantinople*, and is the Scale or Landing-place for *Pruſa*, from which it may be about twelve miles; in the middle way to which is the Village *Mouſſanpoula*.

Pruſa, now called by the *Turks Burſia*, the chief City of *Bithynia*, is ſeated at the foot partly, and partly upon the riſing of the mount *Olympus*, which is one of the higheſt Hills of the leſſer *Aſia*. Its top is covered with Snow for nine or ten Months of the Year, ſeveral ſtreams of Water flowing down the Hill continually, accounted very unwholeſome from the Snow mixed with it. In the upper part of the City to the Northweſt lies the Seraglio, which is walled round; but the Emperors not

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residing here since their acqueists in *Thrace*, or scarce making visits to this Imperial City, and none of their Sons living here of late, according to the former Policy of the *Turkish* Emperors, who did not permit their Sons, when grown up, to be near them, but sent them to some Honourable Employment, accompanied with a Bassa and Cadi to instruct them in the Arts of War and Government, it lies now neglected and dispoiled of all its ornaments.

In this part also are the Sepulchers of *Osman*, the founder of the Family, which now Reigns, and his Son *Urchan*, who took the City, near a Mosch, formerly a *Christian* Church dedicated to St. *John*, and where was formerly a Convent of Religious, built by *Constantinus Iconomachus*, where I saw the figure of a Cross still remaining upon the Wall. Here hangs up a Drum of a vast bigness, such as they carry upon the backs of Cammels, and I suppose is one of those which they used in the taking the Place.

In the lower part, near the bottom of the Hill, *Morad* the second, the Father of *Mahomet* the Great, lies buried: near whereunto was formerly the Metropolitical Church of the *Holy Apostles*. The *Bezesten*, or Exchange, seems to be much better and larger than the great one at *Constantinople*, as are the several Caravanserais built for the use and accomodation of Merchants, and Travellers; in one of which, the Rice Chane, I took up my quarters.

Without the City toward the East is the Mosch and Sepulcher of the Emperor *Bajazid* the

the first, whom the *Turks* call *Silderim* or lightning, and the Greek Writers λαίλαψ. Not far from hence is the Mosch of *Mahomet* the first, and his Sepulcher. Toward the West upon the side of the Hill is the Mosch of *Morad* the First, whom they call *Gazi* or the Conqueror, near which he lies buried. There are in the whole about 124 Moschs, several of which were formerly *Christian* Churches, and between fifty and sixty Chanes. The Castles built by *Osman*, when he besieged the City, are slighted and altogether unfortified, the one to the North, the other to the South-West.

At *Checkerghe*, about a mile and a half out of Town, are the hot Baths, much frequented both by *Christians* and *Turks*. They are made very Convenient to Bath in, and are covered over, that they may be used in all Weathers. Among others, there is a large round *Basin*, where they usually divert themselves by Swimming.

What opinions the *Turks* have of our Blessed *Saviour* and the *Christian* Religion, I shall briefly shew, as they lie dispersed in several Chapters of the *Alcoran*, according to which they frame their Discourse, whensoever either Zeal or Curiosity puts them upon this Topick. For *Mahomet* upon his setting up to be the Author of a new Religion, finding such a considerable part of the World professing the doctrine of *Christ*, with all the Mysteries of Faith therein contained, was cast upon a necessity of saying something both concerning Him and It. By which it will appear, how great the Power of Truth is above Imposture

and Subtility, and that as the Devils in the Possessed confess'd, though against their Wills, *Christ* to be the Son of *God*, so this *Demoniack* in the midst of all his Forgeries and Lies, and Ridiculous and Childish Narratives, not being able to contradict the universal Belief of the *Christians* of that, and the preceding Ages, founded on the History of the Gospel, hath been forced to give Testimony to several particulars of it.

They confess then that *Christ* was Born of a Pure Spotless Virgin, the Virgin *Mary*, chosen by *God* and sanctifyed above all the Women in the World; and that the Angel *Gabriel* was dispatched out of Heaven to acquaint her with the News of it. That such a kind of Miraculous and Supernatural Birth never hapned to any besides, and that *Christ* was conceived by the *Holy Ghost*, and that he wrought mighty Miracles, for Instance, that he cleansed Lepers, gave Sight to the Blind, restored Sick Persons to their Health, and raised the Dead.

That he is a great Prophet, sent by *God* to convert Men from the Vanity and Error of their false Worship to the Knowledge of the true *God*, to Preach Righteousness, and to correct and restore the Imperfection and Miscarriages of Humane Nature; that he was of a most Holy and Exemplary Life, that he was the true Word of *God*, the *Apostle* or *Ambassador* of *God*; That his Gospel was revealed to him from Heaven, and that he is in Heaven standing nigh to the Throne of *God*. They Blaspheme indeed with a Brutishness and Stupidity only befitting *Turks*, the My-

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Mysteries of the *Holy Trinity*, and of the Divinity of our *Blessed Saviour*, and deny that he was put to Death, and say that another in his Shape was Crucified by the *Jews*, and that he himself was assumed into Heaven in his Body without dying at all, and consequently they will not own, that he satisfyed Divine Justice for the Sins of the World; so great an affinity is there between the Heresie of *Socinus* and profess'd *Mahometanism*.

I could never yet see any *Turkish* Translation of the *Alcoran*; they cry up the Elegance of the Style, which being Enthusiastick and High-flown, by reason also of the tinckling of the Periods, is very delightful to their Ears, who seem to be affected with Rhime mightily. Though I suppose it is upon a more Politick Account, that they are so averse, as to the translating it into their vulgar Language, not out of respect to the Sacredness of the Original only, whose full commanding Expressions they think cannot be translated without a great diminution to the Sense; but to keep it in greater Veneration among the People, who might be apt to Slight and Disesteem it, should it become thus common among them. It is enough, that the Priests and Learned Men explain the difficult Passages of it to the People, and write Commentaries for the use of the more Curious and Inquisitive. The *Persians* on the contrary think it no disparagement to the *Arabick*, or Profanation of the Sense, to Translate this cursed Book into their own Language, and Copies are frequent among them.

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The *Grand Signior*'s Women are usually the choicest Beauties of the Christian Spoils, presented by the *Bassa's* or *Tartars*. The present *Sultana*, the Mother of the young Prince *Mustapha*, is a Candiot; the *Valide* or Emperor's Mother, a *Russian*, the Daughter of a poor Priest, who with her Relations were seized upon by the *Tartars* in an Incursion, which they made into the *Muscovites* Country. She being receiv'd into the *Seraglio*, by her beautiful Complexion and cunning Behaviour, gain'd the Heart and Affection of *Sultan Ibrahim* (a Man wholly addicted to soft Pleasures, and who seldom cared to be long absent from the Womens Apartment, but chose to spend his time among them) having the good fortune to be the Mother of the Prince *Mahomet*, the eldest Son of his Father, who now Reigns, she had all the Honours that could possibly be done her, and was the beloved *Hazaki* or chief Concubine. During this height of Splendor and Glory, the Court removing from *Constantinople* to *Adrianople*, distant about an Hundred and Twenty Miles, as she was passing in great State attended with her Guards, through the Streets of the City, in a Coach, much like our Carriage-Wagons, but that they are latticed to let in the Air (for no one must presume to stare or scarce look upon the Women, much less must they themselves suffer their Faces to be seen in this jealous County) she out of Curiosity looking through the holes, saw a poor *Christian* Slave in a Shop, where Sugar and such like Wares were Sold. Upon her return she sent one of her Eunuchs to enquire for the

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the Person, and to ask him several Questions about his Country, Relations, Friends, *and the* time when and how long he had been a Slave: His answers were so particular and *satisfactory*, that she was soon convinc'd of the Truth and Certainty of her apprehensions, *when* she first cast her Eyes upon *him*, that he was her Brother, and accordingly it proved *so*. Whereupon acquainting the Emperor with it, she immediately redeemed him from his Patron, and having made the poor Wretch turn *Turk*, got him considerably preferred.

The Bassa's for the most part are the Sons of *Christians*, taken into the *Seraglio*, near the Emperor's Person, and so are prefer'd to considerable Governments, or else they raise themselves by their Conduct and Valour. *Mahomet* Bassa in the time of *Achmet*, whose eldest Daughter he Married, was the first natural *Turk*, that was made chief Vizir, having before been Captain Bassa. The chief Vizir *Mahomet Kupriuli*, (who settled the Empire in the Minority of this Emperor, when it was ready to be shaken into Pieces, and dissolved by several powerful Factions in the State, and by the Mutinies and Discontents of the *Janizaries* and *Saphi's*, who drove different ways) was an *Albanese* of Birth, the Son of a Greek Priest, who of the height of Zeal for *Mahomet*, [illegible] turn *Turk* in his Old Age, and com[illegible] *Christian* Church in the Village [illegible] Born into the *Dervises* to Dance in a [illegible] round, which before was [illegible]

E [illegible]

ctice at ſet times before the People, which they would do ſo long, till they were giddy by this ſwift circular Motion, and fell down in a Swound, and then oftentimes upon their recovery from ſuch Trances, they pretended to Revelation. The Church-Men are not very kind to his Memory, looking upon him as a Man of little or no Religion; and they give out, that if he had lived, he would have forbid their calling to Prayers from the Spires of their Moſchs, and hanging out Lamps; both which they look upon as Solemn and Eſſential to the exerciſe of Religion; but he as the effect of Biggotry and Superſtition.

They have a mighty Honour and Eſteem for Phyſicians, for though they are of Opinion, that they cannot with all their Art prolong Life, the Period and Term of it being Fatal, and abſolutely determin'd by God, yet they often conſult them upon any violent Sickneſs or Pain, in order to make the time allotted them in this World more pleaſant and eaſie. It is extraordinary rare, that a natural *Turk* makes Phyſick his Profeſſion and Study. They who practice it among them, when I was in *Turky*, were for the moſt part *Greeks* and *Jews*, who know nothing of Chymical Medicines, but follow the uſual Methods, which they learnt in *Italy* and *Spain*, the former having ſtudied in *Padua*, and the latter in *Salamanca*, where they paſs for good *Catholicks*. And I remember I met with a certain *Jew* Phyſician, who had been a Capuchine in *Portugal*. During the tedious Siege of *Candia*, the *Vizir*, what with the me-

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melancholy, and what with the ill Air of the Camp, finding himself much indispos'd, sent for a *Christian* Physician *Signior Massalins*, a subject of the Republick of *Venice*, but Married to a *Greek* Woman, by whom he had several Children, who was our Neighbour at *Pera*, an experienc'd able Man, to come speedily to him, and made him a Present of about a thousand Dollars, in order to fit himself for the Voyage and bear the expence of it. By this worthy Gentleman's Care, he recovered his Health, and would not permit him to depart, till after the surrendry of that City, which might be about seven Months after his Arrival there, treating him in the mean while with all imaginable Respect. During our short stay at *Bursia*, one of our *Janizaries* accidentally discoursing with a *Turk* about us, whom they knew to be *Franks*, told him that there was a Physician in the Company, who had been lately at the Grand *Signior*'s Court at *Saloniki* with the *English* Ambassador, and was now upon his return from *Constantinople* to *Smyrna*, where he lived. This presently took vent, and the *Turks* thought that they had got a Man among them, that could Cure all Diseases Infallibly; for several immediately came to find us out in behalf of themselves or their Sick Friends, and one of the most considerable Men upon the Place, desir'd the Doctor to go to his House to visit one of his Women Sick in Bed, who being permitted to feel her naked Pulse (for usually they throw a piece of fine Silk or Curl over their Womens Wrists at such times) soon discovered by that and other Symptoms and Indi-

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Indications of her Distemper, that opening a Vein would presently give her Ease and recover her: which he did accordingly; for which he received an embroidered Handkerchief instead of a Fee, and gained the Reputation of having done a mighty Cure.

They have little of Ingenious or Solid Learning among them; their chief Study, next to the *Alcoran*, being metaphysical Niceties about the Attributes of *God*, or else the Maintenance of other odd speculative Notions and Tenets, derived down to them from some of their famed Masters and Holy Men, whom they pretend to follow. Their Knowledge of the motion of the Heavens, for which the *Arabians* and the other Eastern Nations have been so deservedly famous, as their Astronomical Tables of the Longitude and Latitude of the fixed Stars, and of the appulse of the Moon to them, fully evince, is now very mean, and is chiefly studyed for the use of Judiciary Astrology. The great Instrument they make use of is an Astrolable, with which they make very imperfect Observations, having no such thing as a Quadrant or Sextant, much less a Telescope, or any mechanical Engine, to direct and assist them in their Calculation. Their Skill in *Geography* is as inconsiderable; I remember I heard the Captain Bassa, whom they stile Admiral of the Black and White Seas, meaning the *Euxine* and the *Mediterranean*, ask this silly Question, whether *England* were out of the Streights? and at another time the *Caymican* or Governour of *Constantinople*, hearing that *England* was an Island, desir-

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deſired to know, how many Miles it was about, in order, we ſuppoſed, to make an eſtimate of our King's Greatneſs and Strength by the extent and compaſs of it.

One of the great Aſtrologers of *Conſtantinople*, having heard that I had a pair of Globes in my Chamber, made me a Viſit on purpoſe to ſee their contrivance, being introduced by a worthy Gentleman of our own Nation: After the firſt Ceremonies were over, I took my Terreſtrial Globe, and rectified it to the poſition of the Place, and pointed to the ſeveral Circles both without and upon it, and told him in ſhort the ſeveral uſes of them: Then ſhewed him how *Conſtantinople* beared from *Candia* at that time Beſieged, *Cair*, *Aleppo*, *Mecca*, and other chief Places of the Empire, with the other Parts of the World: At which he was mightily ſurprized to ſee the whole Earth and Sea repreſented in that Figure and in ſo narrow a compaſs, and pleaſed himſelf with turning the Globe round ſeveral times together. Afterwards I ſet before him the Celeſtial Globe, and rectified that, and ſhewed him how all the noted Conſtellations were exactly deſcribed, and how they moved regularly upon their Poles, as in the Heavens; ſome riſing, and others ſetting, ſome always above the Horiſon, and others always under, in an oblique Sphere, and particularly what Stars would riſe that Night with us at ſuch an Hour; the Man ſeemed to be raviſhed with the Curioſity of it, turning this Globe alſo ſeveral times together with his Finger, and taking a mighty Pleaſure in viewing the motion of it: and yet this ſilly Animal

paſt

past for a Conjurer among the *Turk*
was look'd upon as one that could
the events of Battels, the fates of Em
and the end of the World.

They have no Genius for Sea-Voy
and consequently are very Raw and Un
rienc'd in the Art of Navigation, scarce
turing to Sail out of Sight of Land. I
of the natural *Turks*, who Trade either
the *Black Sea*, or some part of the *M*
or between *Constantinople* and *Alexandria*;
not of the Pyrats of *Barbary*, who are for
most part Renegado's, and learn'd their S
in Christendom, which they exercise so m
to the Terror and Damage of it. A *Tu*
ish Compass consists but of eight Points,
four Cardinal and four Collateral; they
ing at a mighty Loss how to Sail by a si
Wind, when by hauling their Sails sharp, th
might lie their Course, and much more, whe
they are in the Winds Eye, not knowing how t
make Tacks and Bords, but choose rather t
make hast into some Neighbouring Port, 'till th
Wind blows fair. An *English* and *Turkish* Ves
sel both bound for the Bay of *Saloniki*, at th
time of the Grand Signior's being there, pas
together out of the *Hellespont*; but foul Wea
ther happening, the *Turks* got into *Lemnos*;
while our Men kept at Sea and persued their
Voyage, and after three Weeks stay, re-
turned back to us, observing in their way,
that the *Turks* remained in the same place
where they left them, for want of a Fore-
Wind to put to Sea in.

They

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They trouble not themselves with reading the Histories of other Nations or of antient times, much less with the Study of *Chronology*, without which, History is very lame and imperfect; which is the cause of those ridiculous and childish Mistakes, which pass current and uncontradicted among them. For instance, they make *Job* one of *Solomon's* Judges and *(Iscander) Alexander* the great Captain General of his Army. They number *Philip* of *Macedon* among the Ancestors of our *Blessed Saviour*, and believe that *Sampson*, *Jonas*, and St. *George* were his Contemporaries. In this they are more excusable then their false Prophet *Mahomet*, who in his *Alcoran* has perverted several Historical Notices in the Writings of the Old Testament, and is guilty of vile and absurd Pseudo-chronisms. To remedy this defect, of which he was very conscious, and the better to understand the States of *Christendom*, and the particular Kingdoms and Republicks of it, the late Great and Wise *Vizir*, *Achmet*, made his Interpreter *Panagiotti*, a Learned *Greek*, at leisure Hours, even at the Siege of *Candia*, as well as at other times, read several ancient Histories to him, and render them *Extempore* into the *Turkish* Language, and particularly *Blacus Atlas*, with which he was mightily pleased, and made great use of, and truly gained the Reputation of a solid and judicious States-man, as well as Souldier among the *Christian* Ministers, who in the ordinary course of their Negotiations apply'd themselves to him.

Tho'

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Tho' their Year be according to the course of the Moon, and so the *Turkish* Months run round the civil Year in a Circle of thirty three Years and a few odd Days, yet they celebrate the *Neuruz*, which signifies in the *Persian* Tongue the New Year, the twenty first Day of *March* (on which Day the vernal Equinox was fixed by the *Greeks* and other Oriental *Christians*, in the time of the Emperor *Constantine*, who made no Provision for the προηγησις ισημεριν, or Precession, which in process of Time the inequality between the Civil and Astronomical Year must necessarily produce) at which time the *Cadjes* and other annual Magistrates, and Farmors of the Customs take Place, and reckon to that Day twelve Month again.

In their civil Deportment and Behaviour one towards another, the left Hand is the more Worthy and Honourable Place, except among their Ecclesiasticks; and the Reason they alledge is, because they Write from the right Hand, and the Sword is worn on the left Side, and so is more at his disposal, who walks on that Hand. The chief *Vizir* accordingly in the *Divan* sits at the left Hand of the *Musty*, each maintaining their Right of Precedence according to this way of decision.

In their Moschs they sit without any distinction of degrees.

Some of the more zealous *Turks* cause to be engraven on their Scymitars and Bucklers a Sentence out of the sixty first *Surat*, which is concerning Fighting or Battle-array, and contains Incouragements to Fight in the *Way* and

and Paths of God, as the Impostor Words it; for which he assures them, besides assistance from Heaven to help them to get the Victory over their Enemies, and that *God will Pardon their Sins and bring them to Paradice.* Thus spirited with Zeal, a *Turk* lays about him with Fury, when he is a fighting, and seems ambitious of dying to gain the delights of Paradice, at least indifferent whether he dies or lives.

The *Turks* are as to their Temper serious, or rather inclining to morosity, seldom Laughing, which is accounted an argument of great Vanity and Lightness. They perform the Exercises, which they use in the way of Diversion, as Shooting and Hunting, with a great deal of gravity, as if they designed them more for Health than for Pleasure; and this too but seldom. The better and richer sort, who have nothing to do, sitting all Day at Home, lolling upon a Sofa or rais'd Place in their Rooms, and taking Tobacco, which their Slaves fill and light for them: And if they retire in the Summer or Autumn, for a Week or Fort-night to some convenient Fountain in a Wood with their Women, it is chiefly to enjoy the Refreshments of the cool Air. In the times of Triumph indeed for some great Success obtained against the *Christians*, when the Shops are open for three Nights together, and hung with Lights, as well as the Spires of the Moschs in curious Figures, they are guilty of extravagant Mirth, running up and down the Streets in Companies, and sometimes Singing and Dancing after their rude way; but this fit being over

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over, they ſoon return to their former lancholly. In the Coffee-Houſes where uſe to reſort to Tipple, there is uſually hired by the Owners to read either an Book of Tales, which they admire as V or filthy obſcene Stories, with which t ſeem wonderfully affected and pleaſed, of them being able to Read. Theſe are Schools, which they frequent for their formation, tho' in times of War, when thi went ill with them, their Diſcourſes wo be of the ill Government; and the Gra Signior himſelf and his chief Miniſters co not eſcape their Cenſures, which manifeſt tending to Sedition, and to the heightni of their Diſcontents by their mutual Co plaints, and by this free venting of the Greivances during the War at *Candia*, t Wiſe Vizir ſeeing the evil Conſequences th would follow, if ſuch Meetings and Diſcou ſes were any longer tolerated, Commande that all the publick Coffee-houſes ſhould b ſhut up in *Conſtantinople* and ſeveral other grea Cities of the Empire, where the Malecon tents uſed to rendezvouz themſelves, and find fault upon every ill Succeſs and Miſcar riage with the adminiſtration of Affairs.

The cuſtom of the *Turks* to ſalute the Emperor or the *Vizir Baſſa*'s with loud Acclamations and Wiſhes of Health and long Life, when they appear firſt in their Houſes or any publick Place, is derived from the *Greeks*, who took it from the *Romans*. This was done by them in a kind of Singing Tone; whence *Luitprandus* Biſhop of *Cremona* tells us, that

in

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in a certain Procession (περίλυσις) at which he was present, they Sang to the Emperor *Nicephorus* πολλὰ ἔτη that is, many Years, (which *Codinus*, who lived just about the taking of *Constantinople*, by the *Turks*, expresses τὸ ψάλλειν τὸ πολυχρόνιον or by τὸ πολυχρονίζειν and the wish or salute by πολυχρόνισμα) and at Dinner the *Greeks* then present wish'd with a loud Voice to the Emperor and *Bardas*, *Ut Deus annos multiplicet*, as he Translates the *Greek*.

The *Turkish* Coin in it self is pitiful and inconsiderable, which I ascribe not only to their want of Bullion, but to their little Skill in matters relating to the Mint. Hence it comes to pass that Zecchines and Hungars for Gold, and *Spanish* Dollars and Zalotts for Silver stampt in *Christendom* pass current among them, most of the great Payments being made in them, they not caring either through Ignorance or Sloth to follow the Example of the *Indian* or *Persian* Emperors, who usually melt down the *Christian* Mony imported by the Merchants into their several Countries, and give it a new Stamp. The most usual pieces are the Sheriphi of Gold, somewhat less in value than a *Venetian* Zecchine, and Aspers; ten of which are equal to six Pence *English*, and some few three Asper Pieces. A Mangur is an ugly old Copper Piece, eight of which make but one Asper, and is not I think a *Turkish* Coin, but rather *Greek*. They have no Arms upon their Coin, only Letters embossed on both sides, containing the Emperor's Name, or some short Sentence out of the *Alcoran*.

The *Turks* look upon Earthquakes as Ominous, as the vulgar do upon Eclipses, not

underſtanding the Philoſophy of them.
ring my ſtay in *Conſtantinople*, which w
bove 2 Years, there hapned but one, which
October 26. 1669. about ſix a Clock in
Morning a ſtark Calm preceeding. It
ed very near a Minute, and we at *Pera*
Galata were as ſenſible of it, as thoſe
were on the other ſide of the Water;
praiſed be God nothing fell, and we v
ſoon rid of the Fears in which this frigh
Accident had caſt us, being in our Beds,
not able by reaſon of the Surprize in ſo li
a ſpace to have paſt through a Gallery do
a pair of Stairs into the Court, if we had
tempted it. The *Turks* made direful Re
xions on it, as if ſome Calamity would i
vitably fall upon the Empire, quickly forg
ting the great Triumphings and Rejoyci
which they expreſt but a few Days before
the Surrendry of *Candia*. In the Year 16
in *Auguſt*, the Earth ſhook more or leſs
forty-ſeven Days together in the leſſer *A*
at *Anguri* (*Ancyra*), and for fifteen at *Ba*
baſar, as we heard from a *Scotch* Merchan
who liv'd there: And particularly, that
this latter Place on the ſecond of *Auguſt*, b
tween three and four of the Clock in the A
ternoon it laſted for a quarter of an Hou
ſeveral Houſes were overthrown, and ſom
hundreds of Chimneys fell (it being a ve
populous Town) and yet there were but ſe
ven kill'd. The trembling being ſo violen
both *Turks* and *Chriſtians* forſook their Ho
ſes, and betook themſelves to the Field
Vineyards, and Gardens, where they mad
their Abode for ſeveral Days.

Thei

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Their Punishments are very severe, this being judg'd the most effectual way to prevent all publick Disorders and Mischiefs. They use no great Formality in their Processes: If the Criminal be taken in the Fact, and the Witnesses ready and present to attest it, and sometimes if there be but probable circumstances, without full Conviction, condemn him; and soon after Sentence, sometimes an Hour, or less, hurry him away to Execution. For an ordinary Crime, hanging is the usual Death: But for Robbery and Murder, commited upon the High Way by such as Rob in Parties and alarm whole Provinces, or for Sacriledge, or for any hainous Crime against the Government, either Gaunching or Excoriation, or cutting off the Legs and Arms, and leaving the Trunk of the Body in the High Way, or Empaling, that is, thrusting an Iron Stake through the Body out under the Neck or at the Mouth; in which extreme Torment the miserable Wretch may live two or three Days, if the Guts or the Heart happen not to be wounded by the pointed Spike in its Passage. This Punishment seems to have been in use among the *Romans*, *Seneca*'s Epist. 14. *Cogita hoc loco carcerem, & cruces, & eculeos, & uncum, & adactum per medium hominem, qui per os emergat, stipitem:* and so in his Book *De Consolatione ad Marciam cap.* 20. *Ali capite conversos in terram suspendere: Alii per obscena stipitem egerunt: Alii brachia patibulo explicuerunt.* Murder is seldom Pardon'd, and especially if the Relations of the Murder'd Person demand Justice.

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The Circumcision, tho' it be a Sacred Right, is perform'd in their private Houses, and never in the Moschs.

The Women colour their Eye-Brows and Lids with an ugly black Powder, I suppose, to set off their Beauty by such a Shadow; and their Nails with the Powder of *Kanna*, which gives them a Tincture of faint Red, like Brick (as they do the Tails and Hoofs of Horses) which they look upon as a great Ornament. Their great diversion is Bathing; sometimes thrice, if not four times a Week. They do not permit them to go to Church in time of Prayer, for fear they should spoil their Devotion: The *Turks* being of so brutish a Temper, that their Lust is rais'd upon the sight of a fair Object. They are call'd oftentimes by the Names of Flowers and Fruits, and sometimes Phantastick Names are given them, such as *Sucar Birpara*, or bit of Sugar, *Dil Ferib*, or Ravisher of Hearts, and the like.

Their Skill in Agriculture is very mean. In their Gardens they have several little Trenches to convey Water, where it may be most necessary for their Plants and Flowers. They know little or nothing of manuring their Grounds: Sometimes they burn their Fields and Vineyards after Harvest and Vintage, partly to destroy the Vermin, and partly to enrich the Soil. They tread out their Corn with Oxen, drawing a square Plank Board, about a Foot and a half or two Foot over, studded with Flints, and winnow it upon their threshing Floors in the open Air, the Wind blowing away the Chaff. They feed

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feed their Horses with Barly and chopt Straw; for I do not remember ever to have seen any Oats among them; and they make but little Hay.

For Draught of great Weight in their Carts they make use of Buffalo's.

Camels will endure Travel four Days together without Water, and will eat tops of Thistles, Shrubs, or any kind of Boughs: They are very sure-footed, and kneel when they are a loading, and live to a considerable number of Years, some even to sixty.

The chief Furniture of their Houses are Carpets or Mats of *Grand Cairo*, neatly wrought with Straw, spread upon the Ground; they having no occasion of Chairs, Couches, Stools, or Tables; their postures within Doors, being different from ours. They have no Hangings, but their Walls are whited and set off with Painting, only adorn'd with a kind of Porcelane; no Beds clos'd with Curtains.

They seal not with Wax, but Ink, at the bottom of the Paper the Emperor's Name being usually written with Flourishes and in perplext Characters: Nor have they any Coats of Arms upon their Seals, there being no such thing as Gentility among them.

Some of them, notwithstanding their Zeal for *Mahomet* and the Religion by him establish'd, retain not only a favourable and honourable Opinion of our Blessed *Saviour*, but even place some kind of Confidence in the usage of his Name, or of the Words of the Gospel, tho' it may seem to be wholly in the way of Superstition. Thus in their Amu-

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lets, which they call *Chaimaili*, being little bits of Paper of two or three Fingers breadth, roul'd up in pieces of Silk, containing several short Prayers or Sentences out of the *Alcoran*, with several Circles with other Figures, they usually inscribe the Holy and Venerable Name of *JESUS*, or the Figure of the Cross, or the first Words of St. *John*'s Gospel, and the like; they hang them about their Necks, or place them under their Arm-pits, or in their Bosom near their Hearts (being the same with what the *Greeks* call ἐγκόλπια) and especially when they go to War, as a preservative against the Dangers of it; and indeed against any misfortune whatsoever. Some have them sow'd within their Caps: And I heard of a *Turk* who was so superstitious herein, that he always pluck'd it off, and was uncover'd when he had occasion to make Water. Some are such Bigots in their Religion, and so furious against the Christians, that not only they treat them with all imaginable Scorn and Contempt, but take it ill to be salam'd or saluted by them, as if it were the effect of Sawcineſs or unbecoming Familiarity. Their Malice against the Christians makes them envy the rich Furs they line their Vests with, and it is a trouble to these hypocritical Zealots to see the *Franks* ride upon their fine *Arabian* Horses.

The respect which they shew the *Alcoran* is wonderful: They dare not open the Leaves of it with unwashen Hands, according to the Advice or Command written in *Arabick* upon the Cover, *Let no one touch this Book, but he that is clean.* They kiss it, and bend their Heads

Heads and touch their Eyes with it, both when they open it and shut it.

The *Janizaries*, when they attend upon *Christian Ambassadors* to their Audience, seem to appear in their Bravery, and in a Habit far from that of a Soldier, being without either Fire-Arms or Swords, (which latter are not worn but in time of Service, or when they are upon a March, or embodied, wearing a Cap made of Camel's Hair, with a broad Flap dangling behind, a gilt embroider'd Wreath running round it, and an oblong piece of Brass rising up from the middle of their Forehead near a Foot, with a great Club in their Hand, like inferior Officers of the Civil Government. But when they are in the Camp, they throw off their upper Vest, and Turbants, which they wear at all other usual times, as troublesome, and put on a *Fess*, or red Cap, which sits close to their Head, and tuck up their *Duliman* or long Coat, to their Girdle, that they may be the more quick and expedite in their Charge.

They affect finery and neatness in their Cloths and Shashes; not so much as a spot to be seen upon them, and in rainy or suspicious Weather, are very careful how they go abroad without their *Yamurlicks*, which is a kind of Coat they throw over their Heads at such times.

Their Pans and Dishes are for the most part of Copper, but so handsomly Tinn'd over, that they look like Silver.

There are thousands of Gypsies or *Zinganies* in *Turky*, who live the same idle nasty

kind of Life, as they do in *Chriſtendom*, and pretend to the ſame Art of telling Fortunes; and are look'd upon as the Off-ſcouring of Mankind. It is accounted the extremeſt point of human Miſery to be a Slave to any of this ſort of Cattel.

The *Haggi*, or Pilgrims, that have been at *Mecca* and *Medina*, forbear to drink Wine moſt Religiouſly, out of a perſwaſion, that one drop would efface all the Merits of that troubleſome and expenſive Journey; and ſome have been poſſeſs'd with ſuch a mad Zeal, that they have blinded themſelves after their having been bleſs'd with the ſight of *Mahomet's* Sepulcher.

After *Jatzih*, that is, an Hour and a half in the Night, throughout the whole Year, there is as great a ſilence in the Streets as at Midnight: The Emperor *Achmet* in the Year 1611. having made an Order, that no one ſhould preſume to be out of his Houſe after that time; which is to this Day moſt punctually obſerved. The *Boſtangi baſhi*, who has the Command of all the *Agiamoglans* in the *Seraglio*, the *Topgibaſhi* or ſuch great Officers attended with a great Train of armed Men, walking the Rounds, and drubbing ſuch as they find abroad at unſeaſonable Hours of what Nation or Quality ſoever, except Phyſicians, Chyrurgeons, and Apothecaries, whom they allow at all times to viſit the Sick.

The *Turkmans*, (for ſo they are peculiarly called, as if they were the true Deſcendents of the *Old Turks* or *Scythians*, whoſe wandring kind of Life is deſcribed by the Poet;

Αμα-

Ἀμαξόβιοι { *Nulla domus, plauſtris habitant, migrare per arva*
Mos, atq; errantes circumvectare penates.)

have no fixt Reſidence any where, but Travel with their Families and Cattle from Place to Place, carrying their Wives and Children upon Camels; they pitch their Tents uſually near Rivers and Fountains, for the convenience of Water, and according as their neceſſities require, make a longer or a ſhorter ſtay. Their whole Eſtate conſiſts in their numerous Flocks and Herds, which they ſell upon occaſion to ſupply themſelves with what they want, at the Towns they paſs by. Their only concern is how to enjoy the Benefits and Bleſſings of Nature, without the troubles and turmoils and diſquiets of Life; being contented and happy in one another's Company, void of all Ambition and Envy, Courteous and Humane to Strangers, that may want their Help and Aſſiſtance, kindly entertaining them with ſuch Proviſion as their Folds afford. I have met with ſome Companies of theſe harmleſs Wanderers in my Travels. The Country lies open without any Incloſures, and the Propriety not being veſted in any one, they Travel thro' the Plains unmoleſted, and find excellent Paſturage every where. The *Turks* Till no more Ground than will ſerve their neceſſities: Being ſupplied with Corn from *Ægypt*, and from *Moldavia* and *Walachia*, by the way of the *Black Sea*, letting vaſt Tracts of Ground lie waſt

and

and uncultivated; ſo that their Sloth herein ſometimes is juſtly puniſhed with Dearths.

They have nothing to ſhew for their Houſes and Poſſeſſion, but an *Hogiet* or piece of Paper ſubſcribed by the *Cadi*, if they have acquired them by their Mony, or that they were their Fathers before them.

The *Dervi∫es* generally are Melancholy, and place the greateſt part of their Religion in Abſtinence and other Severities. Some cut their Fleſh, others vow not to ſpeak for ſix or ſeven Years, or all their Lives long, tho' never ſo much provoked or diſtreſſed. Their Garments are made of a courſe ſort of Wool or Goat's Hair: They are tied up by the Vow of their Order ever from Marrying. Several of this Sect in the heighth of their Religious Phrenzy have attempted upon the Lives of the Emperors themſelves, (at whoſe Government they have taken diſguſt) as *Mahomet* the ſecond, and *Achmet*, as if ſuch deſperate Attempts were fatal to Bigots in all Religions.

They pay a mighty Veneration to any Relique of *Mahomet*, his Banner is ſtill preſerved in the Treaſury of the *Straglio*, and is look'd upon as the great Security of the Empire. They believe that it was ſent from Heaven, and conveyed into the Hands of *Mahomet*, by the Angel *Gabriel*, as a Pledge and Sign of Succeſs and Victory in his Battels againſt the *Chriſtians*, and all other Enemies of the *Muſulman*-Faith. It was ſent to *Candia* to encourage the Soldiers to endure the fatigue of that long and tedious Siege; and when it was brought thence after the

Sur-

Surrendry of that City, to be depoſited in its uſual Place, the *Vizir* gave ſeveral *Chriſtian* Slaves, that row'd in the Gally that was fraught with this Holy Ware, their Liberty. They pretend to have ſome Rags of *Mahomet*'s Veſt, to which they aſcribe great Virtue. In confidence of which, the Emperor *Achmet*, in the time of a great Fire which raged at *Conſtantinople*, when all other means fail'd, dipt part of them in Water to be ſprinkled upon the Fire to rebate the Fury of it.

Next to the *Muſti* or *Cadaleskires* are the *Mollas*, of which theſe four are the chiefeſt in Dignity. The Molla of *Galata*, *Adrianople*, *Aleppo*, *Pruſa*; and after them are reckoned theſe eight, *Stambol Ephendi*, *Lariſſa*, *Miſir* or *Cairo*, *Sham* or *Damaſcus*, *Diarbekir* or *Meſopotamia*, *Cutaia*, *Sophia*, *Philippi*.

The Prieſts have no Habit peculiar to their Profeſſion, whereby they are diſtinguiſh'd from others. If they are put from their Moſchs for miſcarriage or neglect of doing their Duty, or if they think fit to reſign and be Prieſts no longer, they may betake themſelves without any Scandal to ſecular Employments, their former Character and Quality wholly ceaſing. While they remain Prieſts, they counterfeit a more than ordinary Gravity in their Diſcourſe and Walking: and affect to wear Turbants ſwelling out, and made up with more croſs folds: which was all the difference which I could obſerve by their Head Attire, which is various, tho' I could not find that this was conſtantly and ſtrictly obſerved.

In

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In *Byram* time, which is the great Festival of the Year, at which time every one looks cheerfully and merrily, among other signs of mutual Respect, they besprinkle one another with sweet Water. They indulge to several Sports: and some are mightily pleased with swinging in the open Air, the ordinary sort of People especially, paying only a few Aspers for the diversion.

The Government is perfectly Arbitrary and Despotical; the Will and Pleasure of the Emperor having the force and power of a Law, and oftentimes is above it. His bare Command without any process is enough to take off the Head of any Person, (tho' never so Eminent in Dignity, tho' usually for formality and to silence the Murmurings of the Soldiery and People, the Sentence is confirm'd by the *Mufti*) sometimes *Bassa*'s who have amassed great Treasures in their Governments, are cut off in their own Houses in the midst of their Retinue, the Messengers of Death producing the Imperial Command, usually sent in a black Purse, and not a Sword drawn in their Defence. Others, if they are obnoxious to the least Umbrage or Jealousie, tho' dismist the *Seraglio* with all possible demonstrations of the Grand *Signior*'s Favour, and with Rich Presents in order to take possession of Places of great Command in the Empire, before they have got two or three Days Journey from *Constantinople*, have been overtaken and strangled. In the Army Commands are given according to Merit, Courage and Conduct are sure to be rewarded, the way lying open to the meanest Soldier

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dier to raiſe himſelf to be the chief of his Order. But other Preferments depend upon meer Chance, and upon the fanſie of the Emperor, whether the Perſon be fit or no, and they are as ſoon loſt. The leaſt ill Succeſs or Miſcarriage proves oftentimes fatal, and a more lucky Man is put in his Place, and he ſucceeded by a third, if unfortunate in a Deſign, tho' managed with never ſo much Prudence and Valour. They admit of no hereditary Honours, and have no reſpect to Deſcent or Blood, except the *Ottoman* Family: He only is Great and Noble, whom the Emperor favours, and while his Command laſts. According to a tradition, that paſſes current among them, a Baſſa's Son by a *Sultana* or a Daughter or Siſter of the Emperor can riſe no higher than to be a *Sangiacbei* or Governor of ſome little Province, much inferior to a Baſſa and under his Juriſdiction. Being born of Slaves for the moſt part, they do not pride themſelves in their Birth, very few among them being ſcarce able to give any account of their Grandfathers. They have no Sirnames, but are diſtinguiſh'd by their Poſſeſſions and places of Abode, and enjoying by Law a Liberty of having what Women they pleaſe, they have little or no regard to Alliance or Kindred.

Their Empire owes the continuance of its being to the ſeverity of the Government, which oftentimes takes place without regard either to Juſtice or Equity, and to their frequent Wars, which prevent all occaſions of Mutiny and Faction among the Soldiers, which happen frequently when unimploy'd.

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So that tho' Ambition may put a warlike Sultan upon enlarging his Territories by new Conquests, yet reason of State forces a weak and effeminate Prince, such as was *Ibrahim*, to make War for his own Security. Their Politicks are not owing to Books and Study and the Examples of past times, but to Experience and the plain Suggestions of Nature and common Sense: They have Rules of Government, which they firmly adhere to, holding the Reins strait, especially being cruel and inexorable to Criminals of State, who never are to expect any Mercy or Pity. Their Councils formerly were open, and their Designs known, and proclaimed before Hand, as if this had been a Bravery becoming their Greatness, and that they scorned to steal a Conquest. But they have learned since the Art of dissimulation, and can Lie and Swear for their Interest, and seem excessive in their Caresses to the Ministers of those Countries, which they intend to Invade. But their preparations for Arming are made with so much Noise, that an ordinary Jealousie is soon awakened by it to oppose them, in case of an Attack. They seldom or never care to have War at both Extremes of the Empire at the same time, and therefore they are mighty sollicitous to secure a Peace with *Christendom*, when they intend a War upon the *Persians*: And as much as is possible, they avoid quarrelling with two Christian Princes at once, being usually at League either with *Poland* and *Muscovy*, when they War upon *Hungary*, and so on the contrary; dreading nothing more than an Union of the

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Christian Princes, bordering upon them, which would prove so fatal to their Empire, and quickly put a Period to their Greatness. For hereby they would be put upon a necessity of making a defensive War to their great Loss and Disadvantage, and at last either be forced to beg a Peace of the *Christians*, or run the hazard of losing all, by a further Prosecution of War.

This they are very sensible of, and therefore as they take all occasion to promote Quarrels and Dissentions in *Hungary* and *Transylvania*, so they greatly rejoyce, when the Princes of *Christendom* are at War one with another. This is their great time of Advantage, and they know that it is their true Interest to pursue it, tho' they do not always, by reason of the ill condition of their own Affairs, make use of it. During the Civil Wars of *Germany*, the Bassa's and other Commanders of the Army were very importunate with the grand Signior, to make a War on that side, and to enlarge his Conquests as far as *Vienna*, no conjuncture having been ever so favourable to consummate such a Design, in which *Solyman* so unhappily miscarried. They promised him an easie Victory, assuring him that the Animosities of the Princes of the Empire were so heightned, that there was not room left for a Reconciliation, that he was but to go in the Head of an Army to take Possession, and that *Austria* would Surrender at the first News of his March towards is. The Emperor was not to be moved at that time by these Insinuations and plausible Discourses; being continually

tinually urged, He as often denied, One day when they came to Renew their advice about the *German* War, He having given order before, that several Dogs should be kept for some Days without Meat, commanded that they should be brought out, being almost Starved, and Meat thrown among them, whereupon they snarled and bit one another: In the midst of their Noise and Fighting, he caused a Bear to be let loose in the same Area; the Dogs forgetting their Meat, and leaving off their fighting, ran all upon the Bear, ready to Prey upon them singly, and at last killed him. This Diversion the Emperor gave his Bassa's, and left them to make the application.

A certain Prophecy of no small Authority runs in the Minds of all the People, and has gain'd great Credit and Belief among them, that their Empire shall be ruined by a Northern Nation, which has white and yellowish Hair. The Interpretation is as various as their Fansie. Some fix this Character on the *Muscovites:* And the poor *Greeks* flatter themselves with foolish Hopes, that they are to be their Deliverers, and to rescue them from their Slavery, chiefly because they are of their Communion, and owe their Conversion to the *Christian* Faith to the Piety and Zeal of the *Grecian* Bishops formerly. Others look upon the *Swedes*, as the Persons describ'd in the Prophecy, whom they are most to fear. The Ground and Original of this fancy I suppose is owing to the great Opinion, which they have of the Valour and Courage of that Warlike Nation. The great Victories of the

Swedes

Swedes in *Germany* under *Guſtavus Adolphus* were loudly proclaimed at *Conſtantinople*, as if there were no withſtanding the ſhock and fury of their Arms: And their continued Succeſſes confirmed the *Turks* in their firſt belief, and their Fears and their Jealouſies were augmented afterwards, when *Charles Guſtave*, a Prince of as heroick a Courage, and as great Abilities in the Art and Management of War as the juſtly admired *Guſtavus*, entred *Poland* with his Army, and carried all before him, ſeized upon *Warſaw* and drove *Caſimire* out of his Kingdom, and had almoſt made an entire and abſolute Conqueſt, only a few Places holding out. This alarmed the Grand Signior and the Baſſa's of the *Port*, as if the Prophecy were then about to be fulfilled, who did not care for the Company of ſuch troubleſome Neighbours, who might puſh on their Victories, and joyning with the *Coſſacks*, advance their Arms further, and make their Country the ſeat of a War, which might draw after it fatal Conſequences. To prevent which, Couriers are diſpatch'd from *Conſtantinople* to *Ragotski*, Prince of *Tranſylvania*, then in concert with the *Swedes*, to Command him to retire with his Army out of *Poland*, as he valued the Peace and Safety of his own Country, and the Friendſhip of the Grand Signior, whoſe Tributary he was, and by whoſe Favour he had gain'd that Principality: And the *Crim-Tartars*, the Sworn Enemies of the *Poles*, who at that time lay heavy upon them, were wrought upon by the ſame Motives and Reaſons of State, to clap up a Peace with them, that being freed from theſe Diſtractions, they might

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unite their Forces the better together, and make Head against the *Sweeds*.

The Ambassadors of *Christian* Princes, when they are admitted by the Grand Signior to an Audience, (their Presents being then of course made, which are look'd upon as due, not to say, as an Homage) are dismiss'd in few Words, and referred by him to his *Wakil* or Deputy, as he usually stiles the chief *Vizir*: And a small number of their Retinue only permitted the Honour of kissing his Vest, and then rudely enough sent away.

The Grand Signiors keep up the State of the old *Asiatick* Princes: They do not expose themselves often to the View of the People, unless when they ride in Triumph, or upon some such solemn Occasion; when they go to the Moschs, or divert themselves in the Fields, either in Riding or Hunting, they do not love to be stared upon, or approached. It is highly Criminal to pry into their Sports, such an Insolent Curiosity being often punished with Death. The Story is Famous of *Morad* the Third, who baiting a Bear in the old Palace with a Mastiff, and espying three Fellows upon the Tower of *Bajazid's* Mosch, who had planted themselves to see the Sport, commanded their Heads to be struck off immediately, and be brought before him, which was done accordingly. Instances of such Capricio's are frequent in the *Turkish* History; this following happened during my stay at *Constantinople*.

Upon the return of Vizir *Achmet* from *Candia*, after the Surrendry of that City, and a happy end put by him to that tedious and bloody

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bloody War, he acquainting the preſent Emperor, then at *Adrianople*, with the Hiſtory of that famous Siege at large, made ſuch terrible Repreſentations of their and the *Venetians* Mining and Countermining one another, that the Emperor was reſolved out of Curioſity to ſee the Experiment made of a thing, that ſeemed to him almoſt Incredible. A Work was ſoon raiſed and undermined, and above 30 Murderers and Robbers upon the High-Way and ſuch like Villains were put into it, as it were to defend it. The Grand Signior ſtood upon an Eminence at ſome conſiderable diſtance, expecting the iſſue of it; upon a Signal given, the Mine was ſprung, and the Fort demoliſhed, and the poor Wretches torn piecemeal to his great Satisfaction and Amazement.

The Moon is the auſpicious Planet of the *Turks*: According to the courſe of which they celebrate their Feſtivals. They begin their Months from the firſt appearance of it, at which time they chooſe, except a delay brings a great Prejudice and Inconvenience with it, to begin their great Actions. The Creſcent is the Enſign of the Empire, which they Paint in Banners, and place upon the Spires of their Moſchs. Next to the Day of the appearing Moon, they pitch upon *Friday*, to fight upon, to begin a Journey, and eſpecially their Pilgrimage toward *Mecca*, or do any thing of great Conſequence, as very lucky and fortunate.

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A Relation of a Voyage from *Aleppo* to *Palmyra* in *Syria*; sent by the Reverend Mr. *William Hallifax* to Dr. *Edward Bernard* (late) *Savilian* Professor of Astronomy in *Oxford*, and by him communicated to Dr. *Thomas Smith. Reg. Soc. S.*

D. Thomæ Smitho Edoardus Bernardus, S.

QUanquam Epistolas tuas, O cor & medulla amicitiæ nostræ, & alia munera grato animo in sinum hunc recipere soleo; eas tamen Notitias, *quas tuo dono hodie accepi, tanquam germana & famæ nunquam marcescentis pignora, multo chariores habeo, &, dum vivam, reverenter adservabo. Sic enim Asianarum Ecclesiarum Pleiada e tenebris denuo excitas: sic antiquissimorum Episcoporum sedes instauras, ut candelabrum ἐπτάλυχνον cum magno Theologo & Apocalypta iterum ardens ac fulgens videre mihi videor. Præterea, in descriptione urbis Constantini Silentiarios, Codinos, Gyllios, cæteros exsuperas. Fruere diu superstes hac laude, quam suam esse maluit Sponius, & præter morem ingenuum aut fas sibi abripere.*

Gaudeo

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Gaudeo tamen mihi jam novum adesse munus, quod tecum queam impertire volente spero, & lato. Id est Epigraphorum Sylloge, quas a columnis Palmyrenis *Charissimus amicus,* Gulielmus Hallifaxius *pulchro studio descripsit. Utinam* Syriaca *plura ipse addisset sub Græcis, & Epocham* Palmyrenam *a* Seleuco *victore, non ab* Alexandri *magni obitu incepisset. Historiæ vero* Augustæ *scriptores qui teruntur, &* Herodianus *Grammaticus pleraque Inscriptionum istarum multum illustrant. Verum isthæc vix sunt nostri otii. Attamen si hæc commiseris* Philosophicarum Transactionum, *ut nunc loquuntur, conditoribus haud injucundum πεῖγομα fuerit, donec vir illustris & adprime doctus* D. Cuperus *uberiora forte ediderit de urbe* Solomonis *ejusque reliquiis. Vale vir venerabilis.*

Oxoniæ *Nonis* Octobribus
A. D. CIↃIↃCXCV.

Reverend Sir,

HAving promised you an Account of my Voyage to *Tadmor*, I cannot now Excuse my self from being as good as my Word, whatever Censure I may incur of having mispent my Mony and Time in search of such unprofitable Curiosities; or what I more fear, of having made such poor Improvements, of which a Man of larger Reading and Understanding, might have afforded much greater Information. We departed *Aleppo* on *Michaelmas-day*, 1691. and in six easie Days Travel over a Desart Country, came

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to *Tadmor*; Journying almost continually to the South, with very little variation to the Eastward. As we rode into the Town, we took notice of a Castle about half an Hours distance from it, and so situated as to Command both the Pass into the Hills, by which we entred, and the City too. But we could easily perceive it was no Old Building, retaining no Foot-steps of the exquisite Workman-ship and Ingenuity of the Ancients. Upon Enquiry we were informed, that it was built by *Man-Ogle*, a Prince of the *Druces*, in the Reign of *Amurath* the Third, *Anno D. N.* 1585. But I know not how to give much Credit to this Story, because I find not that either *Man-Ogle*, or any *Drucian* Prince, was ever Powerful in these Parts, their strength lying on Mount *Libanus*, and along the Coast of *Sydon*, *Berytus*, *&c.* 'Tis a Work of more Labour than Art, and the very Situation alone is enough to render it almost Impregnable; standing on the top of a very high Hill, enclosed with a deep Ditch, cut out of the very Rock, over which there was only one sole Passage by a Draw-Bridge: This Bridge too is now broken down; so that there is no Entrance remaining, unless you will be at the Pains to clamber up the Rock, which is in one place feasible, but withal so difficult hazardous, that a small slip may endanger ones Life. Nor is there any thing within to be seen sufficient to recompence your Trouble of getting up to it, the Building being confused, and the Rooms very ill contrived. Upon the top of the Hill there

Tadmor Castle.

is

is a Well of a prodigious depth, as certainly it muſt be a great way to come at Water from the top of ſuch a Rock, the Ditch that ſurrounds it, not having the leaſt appearance of moiſture therein; which made it therefore ſeem more ſtrange that a Wild Boar ſhould ruſh out thence among our Horſes, when we rode up to take a more particular View of the Place. This Caſtle ſtands on the North ſide of the Town, and from hence you have the beſt Proſpect of the Country all about. You ſee *Tadmor* under you incloſed on three ſides with long Ridges of Mountains, which open towards the East gradually to the diſtance of about an Hours Riding; but to the South ſtretches a vaſt Plain beyond the reach of the Eye. In this Plain you ſee a large Valley of Salt affording great quantities thereof, and lying near about an Hours diſtance from the City. And this more probably is the Valley of Salt, mentioned 2 *Sam.* 8. 13. where *David* ſmote the *Syrians*, and ſlew 18000 Men, than another which lies but four Hours from *Aleppo*, and has ſometimes paſt for it. The Air is good, but the Soil exceeding barren, nothing green to be ſeen therein, ſave ſome few Palm-Trees in the Gardens, and here and there about the Town. And from theſe Trees I conceive is obtained its Name, both in Hebrew *(Tadmor)* which ſignifies a Palm-Tree, and in Latin *(Palmira;)* and the whole Country is thence denominated *Syria Palmirena*; and ſometimes *Solitudines Palmirenæ*: So that the Latins did not change but only Tranſlate the old Name, which

The Valley of Salt.

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therefore still obtains in these Eastern Parts, and the more Modern is wholly unknown.

Tadmor. The City it self appears to have been of a large Extent, by the space now taken up by the Ruins; but there are no Foot-steps of any Walls remaining, nor is it possible to judge of the ancient Figure of the Place. The present Inhabitants, as they are a Poor, Miserable, dirty People, so they have shut themselves up, to the Number of about Thirty or Forty Families, in little Huts made of Dirt, within the Walls of a spacious Court, which enclosed a most Magnificent Heathen Temple. Hereinto also we entred, the whole Power of the Village, if I may so call it, being gathered together at the Door, whether to stand upon their Defence, in case we proved Enemies, (for some of them had their Guns in their Hands) or out of meer Curiosity to gaze upon us, I know not. However our Guide, who was an *Arab*, whom *Assyne* (a) their present King had sent to Conduct us through the whole Voyage, being a Man known among them, we had an easie Admittance, and with a great many Welcomes in their Language were led to the *Sheck*'s House, with whom we were to make our Abode. And to mention here what the Place

(a) This *Assyne* was in the Year of our Lord 1693. Deposed by the *Turks*, and one *Dor* advanced to fill his place; so that now he is constrained to live upon Rapine, being followed by a considerable Number of Men, who delight not to Labour, nor to live under any settled Government.

at

at firſt View repreſents. Certainly the World it ſelf cannot afford the like mixture of Remains of the greateſt State and Magnificence, together with the Extremity of Filth and Poverty. The neareſt Parallel I can think of, is that of the Temple of *Baal*, deſtroyed by *Jehu*, and converted into a Draught-Houſe, 2 *Kings* 10. 27. And if, what is not improbable, this very Place was a Temple of *Jupiter Belus*, the Similitude will run upon all Four.

Being thus lodged within the Place, I ſhall begin with a Deſcription thereof, and proceed to what I obſerved remarkable without. The whole incloſed Space is a Square of 200 Yard each ſide, encompaſs'd with a high and ſtately Wall, built of large ſquare Stone, and adorned with Pilaſters within and without, to the number, (as near as we could compute by what is ſtanding of the Wall, which is much the greater part) of 62 on a ſide. And had not the Barbarity of the *Turks*, Enemies to every thing that is ſplendid and noble, out of a vain Superſtition, purpoſely beat down thoſe beautiful Corniſhes both here and in other Places, we had ſeen the moſt curious and exquiſite Carvings in Stone which perhaps the World could ever boaſt of; as here and there a ſmall Remainder, which has eſcap'd their Fury, does abundantly evidence. The Weſt ſide, wherein is the Entrance, is moſt of it broken down, and near the middle of the Square, another higher Wall erected out of the Ruins; which ſhews to have been a Caſtle, ſtrong but rude; the old Stones and many Pillars broken or ſawn

The Temple.

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ſawn aſunder, being rolled into the Fabrick, and ill cemented. Within were to be ſeen the Foundations of another Wall, which probably might anſwer this Front, and that the *Mamalukes*, whoſe Workman-ſhip it ſeems moſt likely to have been, built the Caſtle here for the Security of the Place. Before the whole length of this new Front, except a narrow Paſſage which is left for an Entrance, is cut a deep Ditch, the aſcent whereof on the inner ſide is fac'd with Stone to the very Foot of the Wall, which muſt have render'd it very difficult to have aſſaulted it. The Paſſage to, and the Door it ſelf is very narrow, not wider than to receive a loaded Camel, or that two Foot-men may well walk a-breaſt. And as ſoon as you are within the firſt Door, you make a ſhort turn to the Right, and paſs on to another of the like bigneſs, which leads into the Court. But all this is but a new Building upon an old, and by this outward Wall is quite ſhrouded that Magnificent Entrance, which belonged to the firſt Fabrick; of the ſtatelineſs whereof we were enabled to judge by the two Stones which ſupported the ſides of the great Gate, each of which is 35 Foot in length, and artificially carved with Vines and cluſters of Grapes, exceeding bold and to the Life. They are both ſtanding, and in their Places, and the diſtance between them, which gives us the wideneſs of the Gate 15 Foot. But all this is now walled up to the narrow Door before mentioned. Over the little Door there is an Inſcription in *Greek*, and alſo another in another Language and Character, which I never ſaw

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ſaw till in *Tadmor*, nor underſtand what to make of it. From that in *Greek* we hoped for ſome Information; but it will be evident to any one that reads it, that the Stone was brought from another Place and caſually put in there. 'Tis thus:

ΤΟ ΜΝΗΜΕΙΟΝ ΤΟΥ ΤΑΦΕΩΝΟC ΕΚΤΙCΕΝ ΕΞ ΙΔΙΩΝ CΕΠΤΙΜΙΟC ΟΔΑΙΝΑΘΟC Ο ΛΑΜΠΡΟΤΑΤΟC CΥΝΚΛΗΤ [ΙΚΟC] ΑΙΡΑΝΟΥ ΟΥ ΑΒΔΑΛΑΘΟΥ ΤΟΥ ΝΑCΩΡΟΥΑΥ ΤΩΙ ΚΑΙ ΥΙΟΙC ΑΥΤΟΥ ΚΑΙ ΥΙΩΝΟΙC ΕΙC ΤΟ ΠΑΝΤΕΛΕC ΑΙΩΝΙΟΝ ΤΕΙΜΗΝ.

Under this was the unknown Characters, which I ſhall here give you a Specimen of, it being as well as it could be taken, thus. *Vide Figuram.*

The Letters between theſe [ ] Marks were not Legible, but I have ventured to ſupply the defect, as alſo you will ſee in ſome others following. Neither was the Ε in ΜΝΗΜΕΙΟΝ upon the Stone, but was doubtleſs omitted by miſtake; and the Inſcription is nothing elſe but the Inſcription of a Sepulchre, the like to which we ſaw ſeveral, as I ſhall have occaſion to mention ſome of them hereafter. And as for the other Character, it being added almoſt under every *Greek* Inſcription we ſaw, and rarely found alone, I am apt to believe it the Native Language and Character of the Place, and the Matter it contains nothing elſe but what we have in the *Greek*.

As ſoon as you are entred within the Court, you ſee the Remainders of two Rows of very Noble Marble Pillars 37 Foot high, with their

their Capitals of most exquisite Carved Work; as also must have been the Cornishes between them, before by Rude and Superstitious Hands they were broken down. Of these there are now no more than 58 remaining entire; but there must have been a great many more, for they appear to have gone quite round the whole Court, and to have supported a most spacious double Piazza or Cloyster. Of this Piazza the Walks on the West side, which is opposed to the Front of the Temple, seem to have exceeded the other in Beauty and Spaciousness; and at each end thereof are two Niches for Statues at their full length, with their Pedestals, Borders, Supporters, and Canopies, carved with the greatest Artifice and Curiosity. The Space within this once Beautiful Enclosure, which is now filled with nothing but the dirty Huts of the Inhabitants, I conceive to have been an open Court, in the midst whereof stands the Temple, encompass'd with another row of Pillars of a different Order, and much higher than the former, being above 50 Foot high. Of these remain now but 16, but there must have been about double that Number, which whether they enclosed an inner Court, or supported the Roof of a Cloyster, there being nothing now of a Roof remaining, is uncertain. Only one great Stone lies down, which seems to have reach'd from these Pillars to the Walls of the Temple. The whole Space contained within these Pillars we found to be 59 Yards in Length, and in Breadth near 28. In the midst of which Space is the Temple, extending in Length

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Length more than 33 Yards, and in Breadth 13 or 14. It points North and South, having a moſt Magnificent Entrance on the Weſt, exactly in the middle of the Building, which by the ſmall Remains yet to be ſeen, ſeems to have been one of the moſt glorious Structures in the World. I never ſaw Vines and cluſters of Grapes cut in Stone, ſo Bold, ſo Lively, and ſo Natural, in any Place: And we had doubtleſs ſeen things abundantly more curious, if they had not been maliciouſly broken to pieces. Juſt over the Door we could make a ſhift to diſcern part of the Wings of a large Spread-Eagle, extending the whole wideneſs thereof. The largeneſs whereof led me at firſt to imagine it might have been rather a Cherub over-ſhadowing the Entrance, there being nothing of the Body remaining to guide ones Judgment, and ſome little Angels or *Cupids* appear ſtill in the corners of the ſame Stone. But afterwards ſeeing other Eagles upon Stones that were fallen down, I conclude this muſt have been one likewiſe, only of a much larger ſize. Of this Temple there is nothing at preſent but the outward Walls ſtanding, in which it is obſervable, that as the Windows were not large, ſo they were made narrower towards the top, than they were below; but all adorned with excellent Carvings. Within the Walls, the *Turks*, or more probably the *Mamalukes*, have built a Roof, which is ſupported by ſmall Pillars and Arches; but a great deal lower, as well as in all other reſpects diſproportionate and inferior to what the Ancient Covering muſt have

have been. And they have converted the place into a Moſque, having added to the South End thereof new Ornaments after their manner, with *Arabick* Inſcriptions and Sentences out of the *Alcoran*, wrote in Flouriſhrs and Wreaths, not without Art. But at the North End of the Building, which is ſhut out of the Moſque, are Relicks of much greater Artifice and Beauty. Whether they were in the Nature of Canopies over ſome Altars placed there, or to what other uſe they ſerved, I am not able to conjecture. They are beautified with the moſt curious Fretwork and Carvings; in the midſt of which is a Dome or Cupola, above ſix Foot Diameter, which we found above to be of one piece; whether hewn out of a Rock entire, or made of ſome Artificial Cement or Compoſition, by Time hardened into a Lapideous Subſtance, ſeems doubtful; though I am rather inclined to believe the latter. It is in fine, a moſt exquiſite Piece of Workmanſhip, and on which I could have beſtowed more time to view it, than what was allowed us, haſtening to other Sights.

Having taken this Survey of the Temple, we went Abroad, where our Eyes were preſently accoſted with an amazing ſight of a multitude of Marble Pillars, ſtanding ſcattered up and down, for the ſpace of near a Mile of Ground, this way and that, but ſo diſpoſed as to afford no ſolid Foundation to judge, what ſort of Structures they formerly framed. I paſs by the Ruins of a Moſch, which directing our Courſe Northward, was the firſt thing occurr'd to our View, after

A Moſch.

after we came out of the Court of the Temple, which though of a more Artificial Frame and Composure than many I have seen, yet is not worthy to stop us in the way to things both of greater Antiquity, and every way more noble and worthy our Consideration. Having therefore past this, you have the Prospect of such Magnificent Ruins, that if it be lawful to frame a Conjecture of the Original Beauty of the Place, by what is still remaining, I question somewhat whether any City in the World could have challenged Precedence of this in its Glory. But it being impossible as they now stand to reduce them to any regular Method, I must be forced to give you a rude Account of them as they came in sight; and which will fall much short of the Greatness and Statelines which they shew to the Eye.

An Obelisk.

Advancing then towards the North, you have before you a very tall and stately Oblisk or Pillar, consisting of seven large Stones, besides its Capital and a wreath'd Work above it; the Carvings here, as in all other Places, being extraordinary fine. The height of it is above 50 Foot, and upon it I conceive may have stood a Statue, which the *Turks*, zealous Enemies of all Imagery, have thrown down, and broken in pieces. 'Tis in compass, just above the Pedestal, 12 Foot and a half. On each Hand of this, towards the East and West, you see two other large Pillars, each a quarter of a Mile distant from you, which seem to have some Correspondence one to the other. And there is a piece of

of another ſtanding near that of the Eaſt, which would incline one to think there was once a continued row of them. The height of this to the Eaſt I took with my Quadrant, and conclude to be more than 42 Foot high, and the Circumference proportionable. Upon the Body thereof is the following Inſcription.

Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟϹ ΛΑΙΛΑΜϵΝΑ ΠΑΝΟΥ ΜΟΚΙΜΟΥ ΤΟΥ ΑΙΡΑΝΟΥ ΤΟΥ ΜΑΘΘΑ ΚΑΙ ΑΙΡΑΝΗΝ ΤΟΝ ΠΑΤϵΡΑ ΑΥΤΟΥ ϵΥϹϵΒϵΙϹ ΚΑΙ ΦΙΛΟΠΑΤΡΙΔΑϹ Κ(ΑΙ) ΠΑΝΤΙ ΤΡΟΠΩ (ϵΥ)ϹϵΙΜΩϹ ΑΡϵϹΑΝΤΑϹ ΤΗ ΠΑΤΡΙΔΙ ΚΑΙ ΠΑΤΡΙΟΙϹ ΘϵΟΙϹ ΤϵΙΜΗϹ ΧΑΡΙΝ ϵΤΟΥϹ Ν Υ Α ΜΗΝΟϹ ΞΑΝΔΙΚΟΥ.

I perſwade my ſelf it would be but loſt Labour to ſpend time in making Reflections upon this or the following Inſcriptions; as for the Knowledge they may exhibit to the World, your own Conjectures will more happily lead you unto it, than any thing I am like to ſuggeſt. It ſeems however pretty evident they were a Free State, governed by a Senate and People, though perhaps under the Protection of great Empires, the *Parthians*, it is probable, firſt, and afterward the *Romans*, who for a long time contended for the Maſtery here in the Eaſt. And this Government might continue among them till about the time of *Aurelian*, who demoliſhed the Place, and led *Zenobia*, Wife of *Odenatus*, Captive to *Rome*: Who, though ſhe be called Queen, yet I find not that ever her Husband had the Title of King; but was on-

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ly one of the Chief Inhabitants, a Leading Man in the Senate (as 'tis probable this *Alilamanes* and *Airanes* were before him) who while the *Romans* were buſied in *Europe*, made himſelf great here, and by his own Force repelled the *Parthians*; who having Maſter'd whatever was held by the *Romans* on the other ſide of *Euphrates*, made an Incurſion into *Syria*, but were by *Odenatus* driven back beyond the River. In the courſe of theſe Wars *Odenatus* was ſlain, but his Wife *Zenobia*, being a Woman of a Maſculine Spirit, not only kept her Ground againſt her Enemies Abroad, but maintained her Authority at Home, keeping the Government in her Hands. Afterwards out of a deſire to caſt off the *Roman* Yoke, ſhe cauſed the whole Garriſon, which was left there by *Aurelian*, to be barbarouſly cut off: Which bringing *Aurelian* back with his Army, he quickly took the City, and deſtroyed it, putting the Inhabitants to the Sword, and carrying *Zenobia* Captive to *Rome*; which was the Fatal Period of the Glory of the Place. This Cuſtom of theirs of running up their Genealogies or Pedigrees to the fourth or fifth Generation, ſhews them to have borrowed ſome of their Faſhions from their Neighbours the *Jews*, with whom it is not unlikely they had of old great Commerce; and perhaps many of them were deſcended from that People, *Zenobia* her ſelf being ſaid to have been a *Jeweſs*: Or elſe this muſt have been the manner of all the Eaſtern Nations. Their *Æra* or Account of Time they begin from the Death of *Alexander* the Great, as the *Syrians* generally do;

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the very Chriſtians at this Day following the ſame uſage. Yet though they mark the Date of the Year by *Greek* Letters, you may obſerve they place them a different way from the *Greeks*, ſetting the leſſer Number firſt, as if they were to be read backward, from the right Hand to the left; as ΝΤ here, denoting 450. The third Letter Λ, I take to ſtand for the Day of the Month, *viz.* the laſt of *Xandicus*, which is with us *April*; this and other names of Months, which are found in other Inſcriptions, being borrowed from the *Macedonians* with very little variation. That they were Idolaters, is plain by the mention of their Country Gods, both here and in other Places: So that their Commerce with the *Jews*, did not, it ſeems, bring them to the Knowledge of the true God, or elſe they muſt have degenerated therefrom, and relapſed into Idolatry. The other Pillar towards the Weſt in Height and Circumferance anſwers this, and has upon the ſide the following Inſcription engraved.

ΗΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟC ΒΑΡΕΙΧΕΙΝ
ΑΜΡΙCΑΜCΟΥ ΤΟΥ ΙΑΡΙΒωΛΕΟΥC
ΚΑΙ ΜΟΚΙΜΟΝ ΥΙΟΝ ΑΥΤΟΥ
ΕΥCΕΒΕΙC ΚΑΙ ΦΙΛΟΠΑΤΡΙΔΑC
ΤΕΙΜΗC ΧΑΡΙΝ.

The Date of this is not legible, neither does one know what Judgment to make of the thing it ſelf. That ſuch a Pillar ſhould be erected only to ſupport the Inſcription, and

and convey theſe Mens Names to After-Ages, without particularizing what they did to deſerve that Honour, is ſomething ſtrange: unleſs we may ſuppoſe it was a prevailing Vanity in theſe Eaſtern Countries thus to endeavour to Eternize their Fame. An Inſtance whereof we have in Scripture, in *Abſalom*'s ſetting him up a Pillar, 2 *Kings* 18. 18. and perhaps before him, in *Saul*, 1 *Sam.* 15. 12. Otherwiſe it may appear no improbable Conjecture, that the Pillar was erected long before upon ſome other Occaſion, and afterwards made uſe of to this end: And I look upon it as paſt all doubt that ſeveral other Inſcriptions which we ſaw, were much more Modern than the Pillars, on which they were engraved.

Proceeding forward, directly from the Obelisk, about 100 Paces, you come to a Magnificent Entrance, vaſtly large and lofty, and for the exquiſiteneſs of the Workmanſhip not inferior to any thing before deſcribed. I wiſh I could add, that it had not ſuffered the ſame Fate as the reſt, and then we might have ſeen a rare Piece of the Ancient Beauty of the Place. This Entrance leads you into a Noble Piazza of more than half a Mile long, 938 Yards according to our Meaſuring, and 40 Foot in breadth, encloſed with two rows of ſtately Marble Pillars, 26 Foot high, and 8 or 9 about. Of theſe remain ſtanding and entire 129. but by a moderate Calculate there could not have been leſs at firſt than 560. Covering there is none remaining, nor any Pavement at the bottom, unleſs it be buried

The Piazza.

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ried under the Rubbish. But upon almost all the Pillars we found Inscriptions, both in *Greek* and the Language unknown, of which we had time to take but very few, and those not very Instructive. But such as they are I'll present you them here, without observing any other Order, but as they happened to be transcribed.

ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ ΖΕΒΕΙΔΑΝ ΜΟΚΙΜΟΥ ΤΟΥ ΖΕΒΕΙΔΟΥ.....: ΑCΘωΡΟΒΑΙΔΑΟΙ CΥΝ Α(Υ)Τω ΚΑΤΕΛΘΟΝΤΕC Ε ΙC ΟΛΟΓΕCΙΑΔΑ ΕΝΠΟΡΟΙΑΝ ΕCΤΗCΑΝ ΑΡΕCΑΝΤΑ ΑΥΤΟΙC ΤΕΙΜΗC ΧΑΡΙΝ ΞΑΝΔΙΚω ΤΟΥ ΗΝΦ ΕΤΟΥC...

I give you, Sir, these Inscriptions, as those before, just as I found them, without any Amendments, so much as of litteral Faults, only where a Letter, or piece of a Word was not legible, if I could make a probable Conjecture what it should be, I have ventured to add it. The last seems to have been put up in Memory of an Embassy, performed by those Men that are named therein, for settling a Commerce and Traffick, which was to their Satisfaction accomplish'd: But with whom, till I can find out what Place is meant by (*b*) ΟΛΟΓΕCΙΑΔΑ, I must remain Ignorant.

(*b*) 'Tis not improbable that ΟΛΟΓΕCΙΑC might have been the Name of a Person. *Vologeses* is a known Name in History among the *Parthian* Kings; to which the other seems to bear a great Affinity.

I am

I am unwilling to entertain any Thoughts of *Getia* in *Macedonia*, or of *Olgassus*, a Place mentioned by *Strabo* in *Bythinia*, which comes a little nearer the Name, being both so remote, and the City of *Tadmor* ill contrived for a Place of Trade, being far from the Sea, and without the Advantage of any River. Yet the Magnificence of the Place shews they have not wanted Riches among them: And their Salt is a Commodity which still brings them in a considerable Advantage. The Order of the Numeral Letters you may take notice is again inverted; but taking them the right way, the Year 558 falls in with the last Year of the Reign of *Alexander Severus*, which is of our Lord 234.

About the middle of the Piazza, upon another Pillar, was this following Inscription.

Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟC ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ ΖΗΝΟΒΙΟΝ ΤΟΝ ΚΑΙ ΖΑΒΔΙΛΑΝ ΔΙCΜΑΛΧΟΥ ΤΟΥ ΝΑCCΟΥΜΟΥ CΥΡΑΤΗΓΗCΑΝΤΑ ϵΝ ϵΠΙΔΗΜΙΑ ΘϵΟΥ ΑΛϵΞΑΝΔΡΟΥ ΚΑΙ ΥΠΗΡϵΤΗCΑΝΤΑ ΠΑΡΟΥCΙΑ ΔΙΗΝϵΚϵΙ ΡΟΥΠΙΛΙΟΥ ΚΡΙCΠϵΙΝΟΥ ΤΟΥ ΗΓΗCΑΜϵΝΟΥ ΚΑΙ ϵΠΙΔΗΜΗCΑCΑΙC ΟΥΗΞΙΛΛΑΤΙΟCΙΝ ΑΓΟΡΑΝΟΜΗCΑΝΤΑΤϵ ΚΑΙ ΟΥΚΟΝΙCωΝΑ ΦϵΙΔΗCΑΝΤΑ ΧΡΗΜΑΤωΝ ΚΑΙ ΚΑΛωC ΠΟΛϵΙΤϵΥCΑΜϵΝΟΝ ωC ΔΙΑ ΤΑΥΤΑ ΜΑΡΤΥΡΗΘϵΝΤΑ ΥΠΟ ΘϵΟΥ ΙΑΡΙΒωΛΟΥ ΚΑΙ ΥΠΟ ΙΟΥΛΙΟΥ..... ΤΟΥ ϵΞΟΧωΤΑΤΟΥ ϵΠΑΡΧΟΥ ΤΟΥ ΙϵΡΟΥ ΠΡΑΙΤωΡΙΟΥ ΚΑΙ ΤΗC ΠΑΤΡΙΔΟC ΤΟΝ ΦΙΛΟΠΑΤΡΙΝ ΤϵΙΜΗC ΧΑΡΙΝ ϵΤΟΥC ΑΝΦ.

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This is as perfect an Inscription as any I met with, by the help of which we may make a Judgment of all the rest; at least thus far, that they were put up in Memory of some, who had behaved themselves, in those publick Offices they bore, either in their own Republick, or under the *Romans*, with Commendation; this being a Publick Place, where their Names and worthy Actions were Recorded and Transmitted to Posterity. What I further observed particularly in this, was the want of the Name after ΙΟΥΛΙΟΥ, and took notice of the like space vacant in the other Language under it; and in both places it seemed to be not worn out with Time, but voluntarily scatch'd out. Which confirms me in the Opinion that they are both one, and that the unknown was the Vulgar, as the *Greek* was the learned Language of the Place. Upon another Pillar in the same Walk was this.

CЄΠΤΙΜΙΟΝ ΟΥΟΡѠΔΗΝ ΤΟΝ ΚΡΑΤΙCΤΟΝ ЄΠΙΤΡΟΠΟΝ CЄΒΑCΤΟΥ ΔΟΥΚΗΝΑΡΙΟΝ ΚΑΙ ΑΡΟΑΠЄΤΗΝ ΙΟΥΛΙΟC ΑΥΡΗΛΙΟC ЄΑΛΜΗC ΚΑCCΙΑΝΟΥ ΤΟΥ Μ(Є)ΛЄΝΑΙΟΥ ΙΠΠЄΥC ΡѠΜΑΙѠΝ ΤΟΝ ΦΙΛΟΝ ΚΑΙ ΠΡΟCΤΑΤΗΝ ЄΤΟΥC Η Ο Φ . . . ΜΗΝЄΙ (Ξ)ΑΝΔΙΚѠ.

From another Pillar in the same Piazza was Transcribed this broken Inscription which follows, which I have endeavoured to make up from the former, believing them in substance the very same, with some little Alteration of Names.

CЄΠ-

CЄΠTIM(ION OYOPωΔHN) TON KPA(TICTON ЄΠITPO) ΠON CЄBAC(TOY ΔOYK)HNAPION KA[I APOAΠЄ]THN IOYAIOC AY[PHAI]OC Є[AAMHC] ΠTIACOC M[ЄAЄNAI]OC MAAωXA NACCOYMO[Y] O KPATICTOC TON[ΦIAON] KAI ΠPOCTATHN TЄIMHC ЄNЄKЄN ЄTOYC... [MHNЄIΞ]ANΔIKω.

This is ſo like the preceeding, that I thought I might fairly take the Liberty to make theſe Additions to it. And what we we may Collect from both, and divers others of a like Import, is, That as the State, the Senate, and People, did ſometimes Honour thoſe that had been in Publick Truſt, with Inſcriptions upon theſe Pillars: So when this was not done by them, private Perſons had the Liberty to do the ſame for their Friends. And I ſhall give you an Inſtance by and by of one Engraven by a Husband in Memory of his Wife. Upon ſeveral of theſe Pillars are little Pedeſtals jetting out about the middle of them, ſometimes one way only, and ſometimes more, which ſeem to have been the Baſes or ſtanding Places of Statues. But none of theſe are remaining; neither is it to be expected they ſhould, in a place which has been ſo long in the Hands of the *Turks*. On theſe Pedeſtals we ſaw many Inſcriptions, ſometimes when there were none upon the Body of the Pillar, and ſometimes when there were. As for Inſtance this that follows upon the Pedeſtal, thus.

CЄΠTIMION AIPANHN OΔAINOΘOT TON ΛAMΠPOTATON CTNKΛHTIKON. And upon the Body of the Pillar this Imperfect one; which I dare not venture to fill up, but shall give it you as we found it.

ЄΞA..... NTωN ATPHAI..... PHΛIOΔωP..... CTPATIωTHC ΛЄ..... KHC TωN ΠATPωN TЄIMHC KAI ЄTXAPICTIAC KAPIN ЄTOYC ΓΞΦ.

We see they esteemed it very Honourable to have their Memories preserved after this manner; but it is but little Knowledge of them we can get from hence, save now and then the Time when they lived. As here, 563 Years after the Death of *Alexander* reach to the Year of our Lord 239. Another Inscription in the same Piazza was thus.

H BOTΛ[H KAI O ΔH]MOC CЄΠTIMION TON KPATIC TON Є[ΠITPOΠON C]ЄBACTOT ΔOTKHN[APION].... ЄOΔO THN THC MHT[POKOΛω]NЄIAC KAI ANAKOMICA(NTA T)AC CTNOΔIAC ЄΞ IΔIωN KAI MAPTTΠHΘЄNTA TΠO TωN APXЄMΠORωN KAI ΛAMΠPωC CTPATHΓHCANTA KAI AΓORANOMHCANTA THC ATTHC MHTPOKOΛωNЄIAC KAI ΠAЄICTA OIKOΘЄN ANAΛωCANTA KAI APЄCANTA THTЄ ATTH BOTΛH KAI Tω ΔHMω KAI NTNЄI ΛAMΠPωC CTMΠOCIARKON TωN TOT ΔIOC BHAOT IЄ[P]ωN TЄIMHC ЄNЄKЄN ЄT..... ΞANΔIKω.

This

This affords a sufficient confirmation of what I before observed, that these were Honorary Inscriptions in Memory of those that had behaved themselves well in Publick Offices; of which we have several mentioned here, whereof some are very well known, but the others not easie to be met with in Books. By the Word ΜΗΤΡΟΚΟΛΩΝΕΙΑC, we may be assured that though the City was reduced by the *Romans* into the form of a Colony, yet it had a peculiar mark of Honour set upon it, to signifie that it was the chief of their Colonies in these Oriental Parts. That the Authority also of their Senate and People was continued to them. And besides that there was a Society of Men, either Curators of the Temple of *Jupiter Belus* (to whom the Temple before described perhaps was dedicated,) or Overseers of the Sports and Festivals that were celebrated in Honour of him; of which Sodality this *Septimius* was, when this Inscription was made, a *Symposiarch*, perhaps their Chief and Governour. By this too we find they did not wait for the Deaths of those they thus honoured, before they provided for the Preservation of their Memories; but Famous Men were thus Registered for After-Ages even while they were alive. Upon one of these Pedestals before described, not far from the former, was the following Inscription; which I valued the more for the little remainder it has preserved of the Name of *Palmyra*, by which the Place was known to the *Romans*.

...ΤΗΙ·

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...ΤΠΙΛΙΟΝ ΟΥΟΡΩΔΗΝ [CΥΝΚΛ]ΗΤΙΚΟΝ ΚΑΙ ΒΟΥΛΕΥΤΗΝ ΠΑΛΜΥΡΗΝΟΝ ΒΗΛΑ ΚΑΒΟCΑΡCΑ ΤΟΝ ΦΙ[ΛΟΝ] ΤΕΙΜΗC ΧΑΡΙΝ ΕΤΟΥC Ο Φ.

The Banquetting-House.

The upper end of this spacious Piazza was shut in by a row of Pillars, standing somewhat closer than those on each side; and perhaps there might have been a kind of Banquetting-House above, but now no certain Footsteps thereof remain. But a little farther to the left Hand, and, it may be, continued with the former Walk, lie the Ruins of a very stately Building, which I am apt to believe might have been for such an use. 'Tis built of better Marble, and has an Air of Delicacy and Exquisiteness in the Work, beyond what is discernable in the Piazza. The Pillars which supported it are of one entire Stone; and on one of them that is fallen down, but so firm and strong that it has received no Injury thereby, we measured, and found 22 Foot in length, and in compass 8 Foot and 9 Inches. Among these Ruins we found the only *Latin* Inscription we saw in the Place, and that so imperfect, there is but little of it Intelligible.

.....*es Orbis & Propagatores Generis Humani D. D. N. N.* Diocletianus .....*ssimi Impp. Et* Constantius *&* Maximianus *Nobb. Cæs. Castra feliciter condiderunt.*

And upon the same Stone a little lower,

.....*ntes* Ossiano Hieroclete, *V. P. Præs. Provinciæ D. N. M. O. Eorum.*

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The Name of *Maximianus Hercules*, who was Partner in the Empire with *Diocleſian* which ſhould have followed in the Inſcription, ſeems to have been on purpoſe ſcratch'd out, and defaced, for what reaſon I cannot gueſs. The reſt is loſt by the breaking of the Stone.

The Palace.

In the Weſt ſide of the great Piazza are ſeveral openings for Gates leading into the Court of the Palace: Two whereof, one would eaſily believe when they were in their Perfection, were the moſt Magnificent and Glorious in the World, both for the Elegancy of the Work in general, and particularly for thoſe ſtately Porphyry Pillars with which they were adorned. Each Gate had four, not ſtanding in a Line with the others of the Wall, but placed by couples in the Front of the Gate, facing the Palace, two on one Hand, and two on the other. Of theſe remain two entire, and but one ſtanding in its place. They are about 30 Foot in length, and 9 in circumference; of a Subſtance ſo exceeding hard, that it was with great difficulty we broke off a few ſhivers to bring home with us for a pattern of the Stone, the Art of making which, I think is quite loſt. We ſaw ſeveral other broken pieces of Porphyry, but neither of ſo accurate a Mixture and Compoſition, nor ſo large as the former. The hard Fate of one I could not but lament, when I ſaw it debaſed to ſupport the corner of a little Hutt, ſcarce good enough for a Dog-Kennel, or a Hogſty. The Palace it ſelf is ſo entirely ruined, that no Judgment can be made what it was in its Ancient Splendor, either for the Figure or Workmanſhip thereof.

There

There is only here and there a broken piece of a Wall remaining, beat into pieces by Violence, and conſumed by Time to that degree, that without the help of Tradition we could hardly be well aſſured, that a Royal Palace did once fill that Space. We may gueſs however that it fronted the Famous Piazza before mentioned, and was ſurrounded with rows of Pillars of different Orders, many of which are ſtill ſtanding, ſome plain, and ſome wrought and channell'd, as thoſe immediately encompaſſing the Temple. And upon thoſe little Pedeſtals which ſtood out of the middle of ſome of them, I obſerved ſeveral Inſcriptions, but could not conveniently take more than one, which together with the Pillar that ſupported it was fallen to the Ground. 'Twas this.

ΜΑΡΘΕΙΝ ΑΛΕΞΑΝΔΡΟΥ ΤΟΥ ΚΑΠΑΔΗΤΟΥ ΟΥΑΒΑΛΛΑΘΟΥ ΤΟΥ ΣΥΜΩΝΟΥ ΣΟΡΑΙΧΟΣ ΑΙΡΑΝΟΥ ΑΝΗΡ ΑΥΤΗΣ ΜΝΗΜΗΣ ΕΝΕΚΕΝ ΜΗΝΕΙ ΔΥΣΤΡΩ ΤΟΥ ϟΥ ΕΤΟΥΣ.

If the reſt were of a like Nature with this, we have loſt no great matter by not taking them, this being only a Memorial, which a kind Husband cauſed to be ſet up in Honour of his Wife. The Month *Dyſtrus*, anſwers our *March*, and the Year 490 from the Death of *Alexander* the Great, the Year of our Lord 166.

I omitted to mention before, that under the long Walk runs a Current of hot Sulphureous Waters; and there is a Well and other Paſſa-

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Passages down to them. But whatever they may have been of old, they are not now so convenient as another about half a Mile Westward from hence; where there is a very good Descent into the Water, and it is still used by the People to Bath in. Near to which, upon the Pedestal of a broken Pillar, (or perhaps it might be an Altar) remains this following Inscription.

ΔΙΙ ΥΨΙCΤω ΜΕΓΙCΤω ΚΑΙ ΕΠΗΚΟω
ΒωΛΑΝΟC ΖΗΝΟΒΙΟΥ ΤΟΥ ΑΙΡΑΝΟΥ
ΤΟΥ ΜΟΚΙΜΟΥ ΤΟΥ ΜΑΘΘΑ ΕΠΙ
ΜΕΛΕΤΗ COH ΑΙΡΕΘΕΙC ΕΦΚΑC
ΠΗΓΗC ΥΠΟ ΙΑΡΙΒωΛΟΥ ΘΕΟΥ ΤΟΝ
Βω [forsan Βω MON] ΕΞ ΙΔΙωΝ
ΑΝΕΘΗΚΕΝ ΕΤΟΥC Δ Ο Υ ΜΗΝOC
ΥΠΕΡΒΕΡΕΤΑΙΟΥ Κ.

I am pretty confident that the Word I have mark'd with a Line under it, is rightly taken, and therefore know not what to guess it to be, unless the proper Name of the Fountain. And upon that Supposition the Inscription is easily Intelligible, shewing that *Bolanus*, Son of *Zenobius*, &c. being elected Overseer or Curator of this Fountain, under *Jaribolus*, built this Altar to *Jupiter*, in the Year of *Alexander* 474. *i. e.* of our Lord 150. and on on the 20*th* of *October*, if the last *Kappa* be a Numeral, as I suppose it must. But who this *Jaribolus* was, on whom they bestow, as generally upon the *Roman* Emperors, whose Names occur in the Inscrip-

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scriptions, the Title of ΘΕΟC, is not so facile a Conjecture. They were under the *Parthians*, before the *Romans* fell in amongst them; but the Date shews this to be after the time of *Hadrian*, and so after their coming. Nay, and in an Inscription before mentioned, which is of a later Date than this by 88 Years, we have the Name of the same Person. Hot Sulphureous Baths are things very frequent in this Country; and thence it was that it obtained the Name of *Syria Salutifera*. The scent of the Waters here is much like those of *Bath* in *England*, but not so strong, neither is the Taste so offensive. On the contrary, when they have run so far from the Fountain, as to become cold, they are very potable, and are the only Waters the Inhabitants use. But we, during our stay there, sent to a Fountain of very excellent Water, about an hour distant from the City.

On the East side likewise of the long Piazza stands, if I may use such an Expression, a Wood of Marble Pillars, some perfect, and others deprived of their beautiful Capitals; but so scattered and confused, that it is not possible to reduce them into any Order, so as to conjecture to what they anciently served. In one place are Eleven together in Square after this manner paved at the bottom with broad flat Stone, but without any Roof or Covering. And at a little distance from that stands the

The little Temple.

Ruins of a small Temple, which by the remains seems to have been for the Workmanship very curi-

curious: But the Roof is wholly gone, and the Walls very much defaced and conſumed with Time. Before the Entrance which looks to the South, is a Piazza ſupported by ſix Pillars, two on one Hand of the Door, and two on the other, and at each end one. And the Pedeſtals of thoſe in the Front have been filled with Inſcriptions, both in *Greek* and the other Language; but they are now ſo obliterated and worn out, as not to be Intelligible. The moſt perfect was this that follows.

ΜΑΛΕΝΤΟΝ ΚΑΙ ΑΓΡΙΠΠΑΝ ΙΑΡΑΙΟΥ ΤΟΥ ΡΑΑΙΟΥ ΓΡΑΜΜΑΤΕΑ ΓΕΝΟΜΕΝΟΝ ΤΟ ΔΕΥΤΕΡΟΝ ΕΠΙΔΗΜΙ[Α] ΘΕΟΥ ΑΔΡΙΑΝΟΥ ΑΛΙΜΜΑ ΠΑΡΑΣΧΟΤΑ ΞΕΝΟΙΣΤΕ ΚΑΙ ΠΟΛΕΙΤΑ[ΙΣ]..... And a little below were theſe ſtraggling Letters viſible.

ΕΝΗ.... Ν ΥΠΗΡΕΤΗΣΑΝΤΑ ΤΗΤ.... ΣΤΡΑΤΕΥΜΑ ΤΟΥ.... ΥΠΟ.... ΗΚΑΙ.....ΤΟΝ ΝΑΟΝ ΤΟΝ.... ΔΙΟΣ.... ΝΤΩΤ.....

I ſhould have imagined the ΚΑΙ to have been a Copulative, and the ſecond Name *Agrippa* diſtinct from the former, but that the Words following in the Singular Number, will not admit of ſuch a Conſtruction. The Perſon then in Memory of whom this Inſcription was

was made, must have been named *Malentus Cangrippa*, who bearing such an Office as Scribe, or the like, in the Expedition of *Adrian* the Emperor, performed an Act of Publick Benificence and Generosity, both to Strangers and Citizens, denoted by the Word (*c*) ΑΛΙΜΜΑ, or ἄλειμμα, which signifies Unction. Perhaps he distributed amongst them Sweet Oyls, to be used in or after their Bathings. 'Tis pity what follows is so imperfect; and especially that we cannot find out the Date: For that might have directed us to the precise time of *Hadrian*'s Expedition into these Oriental Parts, where he made great Conquests, and enlarged the Bounds of the *Roman* Empire.

The Sepulchers.

But as great a Curiosity as any were their Sepulchers, being Square Towers, four or five Stories high, and standing on both sides of a hollow way, towards the North part of the City. They stretch out in length the space of a Mile, and perhaps formerly might extend a great way further. At our first view of them, as we entred the place, we could not conjecture what they were; some thought them the Steeples of ruined Churches, and were in hopes we should have found some

(*c*) *Plin. Secun. Ep. l.* 2. Tells us of one, who was accused of an Illegal Exaction of Money from a Province, *Titulo Unguentarii*; now what was in that case unjustly exacted, might be in this a Voluntary Donation, not of the Province to the Governour, but of a great Man to the People. Or else *Unguentarium* may be supposed to be a Donative, like *Clavarium* or *Culinarium*, used sometimes by the *Romans*.

foot-

footsteps of Christianity here. Others took them to have been Bastions, and part of the Old Fortifications, tho' there is not so much as any Foundation of a Wall to be seen. But when we came a Day or two after, more curiously to enquire into them, we quickly found their use. They were all of the same Form, but of different Splendor and Greatness, according to the Circumstances of their Founders. The first we viewed was entirely Marble; but is now wholly in Ruins, and nothing but a heap of broken Stones, among which we found the pieces of two Statues, one of a Man, and another of a Woman, cut in a sitting, or rather leaning posture; and the Heads and part of the Arms of both being broken off, but their Bodies remaining pretty entire; so that we had the Advantage of seeing their Habits, which appeared very Noble, but more approaching the *European* Fashion, than what is now in use in the East; which inclined me to believe they might be *Romans*. Upon broken pieces of Stone tumbled here and there, we found some as broken Inscriptions, but not affording any perfect Sense, they are not worth the Transcribing.

Many other Sepulchers there were, as much gone to decay as this, which therefore we past by, to go to two, which stood almost opposite to one another, and seemed most perfect of any, though not without marks of the *Turkish* Malice. They are two square Towers, rather larger than ordinary Steeples, and five Stories high, the outside being of common Stone, but the Partitions and Floors within of good Marble; and beautified too

with very lively Carvings and Paintings, and Figures both of Men and Women, as far as the Breaſt and Shoulders; but miſerably defac'd and broken. Under theſe Statues, or by their ſides, are in the unknown Character, the Names probably of the Perſons there buried, or by them repreſented; or elſe ſome other Memorials of them. We entred one of theſe by a Door on the South ſide, from which was a Walk croſs the whole Building juſt in the middle. But the Floor was broke up, and ſo gave us a ſight of a Vault below, divided after the ſame manner. The Spaces on each Hand were again ſub-divided into ſix Partitions by thick Walls, each Partition being capable of receiving the largeſt Corps: And piling them one above another, as their way appears to have been, each of thoſe Spaces might contain at leaſt ſix or ſeven Bodies. For the loweſt, ſecond and third Stories, thoſe Partitions were uniform, and altogether the ſame; ſave from the ſecond Floor, which anſwered the main Entrance, one Partition was reſerved for a Stair-Caſe. Higher than this, the Building, being ſomething contracted towards the top, would not afford ſpace for the continuation of the ſame Method: Therefore the two uppermoſt Rooms were not ſo parted, nor perhaps ever had any Bodies lain in them. Unleſs it was that of the Founder alone, whoſe Statue wrapt up in Funeral Apparel, and in a lying Poſture, is placed in a Nich, or rather Window in the Front of the Monument, ſo as to be viſible

both

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both within and without. Near to this Statue was the following Inscription.

ΤΟ ΜΝΗΜΕΙΟΝ ΘΚΤΙϹΑΝ
ΕΛΑΒΗΛΕϹ ΜΑΝΝΑΙΟϹ ϹΟΧΑΕΙϹ
ΜΑΛΧΟϹ ΟΥΑΒΑΛΛΑΘΟΥ ΤΟΥ
ΜΑΝΝΑΙΟΥ ΤΟΥ ΕΛΑΒΗΛΟΥ ΑΥΤω
ΚΑΙ ΥΙΟΙϹ ΕΤΟΥϹ ΔΙΥ ΜΗΝΟϹ
ΞΑΝΔΙΚΟΥ.

'Tis a little doubtful whether ΑΥΤω should not rather be made ΑΥΤΟΙϹ; or else there there must be a Fault in the Verb, and all those but the Names of one Person. The other Monument on the other side of the way is very much like this; only the Front and Entrance are towards the North, and 'tis not altogether so Polite, nor so well Painted. But the Carvings are as good, and it shews altogether as Stately and Magnificent as the former. Besides, it has the Advantage in Age of a whole Century of Years: As appears from the Date of the following Inscription. 'Tis placed above a Nich in the Front, adorned with handsom Borders and Cornishes; the place, doubtless, of some Statue, and probably that of the Founder.

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ΜΝΗΜΕΙΟΝ ΑΙωΝΙΟΝ ΓΕΡΑC
ωΚΟΔΟΜΗCΕΝ ΓΙΧΟC ΜΟΚΙΜΟΥ
ΤΟΥ ΚΑΙΑΚΙΑΛCΙCΟΥ ΤΟΥ ΜΑ.....
ΟΥ ΕΙCΤΕ ΕΑΥΤΟΝ ΚΑΙ ΥΙΟΥC ΚΑΙ
ΕΓΓΟΝΟΥC ΕΤΟΥC Δ ΙΤ ΜΗΝΕΙ
ΞΑΝΔΙΚω.

This is the most Ancient Inscription I met with in *Tadmor*, the 314th. Year from the Death of *Alexander* the Great, preceding the Birth of our Saviour about Ten Years. The other also is between Twenty and Thirty Years before the Reign of *Hadrian*, and consequently before the *Romans* got footing here. And from these sumptuous Structures, and these costly *Mausolea*, we may reasonably conclude, they were a Potent and Opulent People, before they became subject to the *Romans*, and were not obliged to them for their Greatness.

And now I believe I have wearied you sufficiently by leading you up and down the Ancient and Famous City of *Tadmor*, and giving you so dry an Account of our Employment there. After 4 Days stay we returned, not the way that we came, but proceeding Eastward towards the River *Euphrates*. In our way to which, the third Day, passing though a Village called *Tieve*, upon a Stone set wrong End upwards, in the midst of the Wall of the Mosch, we met with the following Inscription.

ΔΙΙ

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ΔΙΙ ΜΕΓΙCΤω ΚΕΡΑΥΝΙω ΥΡΕΡ
CωΤΗΡΙΑC ΤΡΑ: ΑΔΡΙΑΝΟΥ CΕΒ...
ΤΟΥ ΚΥΡΙΟΥ ΑΓΑΘΑΝΛΕΛΟC
ΑΒΙΛΗΝΟC ΤΗC ΔΕΚΑΠΟΛΕΟC
ΤΗΝ ΚΑΜΑΡΑΝ ωΚΟΔΟΜΗCΕΝ
ΚΑΙ ΤΗΝ ΚΛΙΝΗ.... ΕΞ ΙΔΙωΝ
ΑΝΕΘΗΚΕΝ ΕΤΟΥC ΕΜΥ ΜΗΝΟC
ΛωΟΥ.

And under this was another in the ſame Language and Character we had ſeen at *Tadmor*; I was ſurprized to find ſuch an Inſcription in this Place, nor can any way gueſs how they ſhould come by it: And the mention of *Decapolis* makes me ſtill more in the Dark. If one might extend the Bounds of *Decapolis*, as ſome are ſaid to have done, as far as *Caloſyria*, and comprize under this Name again all *Syria*, *Phœnicia* only excepted, then need it not be brought from elſewhere, but firſt ſet up in this Village. But this will not be allowed by thoſe who make *Decapolis* only a part of *Paleſtine*. The Matter of Fact it contains is only an Account of the Magnificence of this *Agathangelus Abilenus*, whoever he was; who for the ſafety of the Emperor *Hadrian*, erected at his own Charges, and Dedicated to *Jupiter* the Thunderer, a Royal Ban-

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quetting-House, (for so I take (*d*) ΚΑΜΑΡΑ to signifie) and a Bed of State; for after ΚΑΙΝΗ there is doubtless a Letter omitted, and it ought to be ΚΑΙΝΗΝ. The Date 445 agrees to the Year of our Lord 123. which was the seventh of the Reign of *Hadrian*. And the Month ΛωΟC is our *August*.

Arsoffa. The next Day we past by the Ruins of a large Monastery of the *Maronites*, as I guess it to have been by an Inscription we met with upon the Capitals of several Marble Pillars, which supported the middle Isle of a handsome Church, which was to this effect.

† ΕΠΙ ΕΡΓΙω ΕΠΙCΚ°. Τω ΣΥΝΓΕΝ˜ ΜΑΡωΝΙω Τω ΧωΡΕΠΙCΚ°.

From thence we past on, and came the same Night to *Euphrates*, and having travelled two Days on the Banks of that Famous River, we came to the Tents of the King of the *Arabs*, who had furnish'd us with a Guide for our Voyage. With him we remained two Nights, and in two Days Travel more came back safe to *Aleppo*, having been out in the whole just 18 Days.

(*d*) This Word I find both in *Tacitus* and *Strabo*, used for a kind of Ships or Boats, long, narrow, light, and capable of receiving 20, or at most 30 Men; but what they should do with Boats in an Inland Town, without either River or Lake near it, I cannot imagine. I rather adhere to the other signification.

The

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The Reverend and Learned Author of this Account, cannot with Justice be censured, if some Minute Particulars of the History of this Place, have escaped his Memory, being obliged to write without recourse to the Books proper for his purpose, which were not to be had in that Country. We have since procured a Curious Prospect of these Noble Ruins, taken on the Place; which, with some further Remarks thereon, are here Published.

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An Extract of the Journals of two several Voyages of the English Merchants *of the Factory of* Aleppo, *to* Tadmor, *anciently call'd* Palmyra.

OUR Merchants of this worthy Factory, being generally Men of more than ordinary Birth and Education, have not been wanting (as the intervals of leisure from their gainful Traffick would permit) to make Voyages of Curiosity, to visit the celebrated Remains of Antiquity in those Parts, whereby the once flourishing State of the World, under the *Roman Empire*, is abundantly evinced. And being inform'd by the Natives, that the Ruins of the City of *Tadmor* were more considerable than any they had yet seen, they were tempted to enterprize this hazardous and painful Voyage over the *Desart*; but having been, by the perfidy of the *Arabs*, disappointed of their Desires in their first Attempt, they were obliged to defer their Curiosity, till they could better provide for their Security: whereof being assured, from the Confidence some of them had in the Friendship of *Assyne* then King of the *Arabs*, they adventured again, in the Year 1691, and had full liberty to visit, observe and transcribe what they pleased. What

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What Account they there took, the Publick has already seen in our Last, since which, by the Favour of Mr. *Timothy Laney* and Mr. *Aaron Goodyear*, two very Eminent Merchants, who were both in the first Voyage, we have received not only the Draught of the Prospect of those noble Ruins, taken upon the Place, (of which we here give a Copy,) but also the Journals of both the Voyages; which, for the Satisfaction of the Curious, we have thought fit to Publish:

The first Voyage, Anno. 1678.

July 18. at Five in the Morning, we set out from *Aleppo*, being sixteen *English*; but with Servants and Mulettiers in all forty; and in four Hours and an half, travelling South by East, we arrived at a Village call'd *Casserabite*, being at the edge of the Desart, here we reposed the rest of that Day.

July 19. we rose at one in the Morning, and directed our Course S. S. E. over the Desart, for a Fountain call'd *Churraick*; but our Guide losing his Way, there being no Path, 'twas near Noon before we found it: which made us doubt of our Safety. This Well has no Signs near it to discover it by. Here we pitch'd our Tents, and refresh'd our Selves and Horses; and the Water being of a Purgative Quality, made us some Diversion. In our way, we found two *Arabs* with two Asses, one whereof carried Water and a little Bread, the other they rod on by turns; they had one Gun, with which they

they

they ſhot Antelopes, the Bullet being a hard Stone broken round, and caſed with Lead; they had on the Palms of their Hands, Elbows, Knees and Feet, ſome Antelope-Skin tied, that they may be able to creep the better on the Ground, to Shoot; one of the Aſſes walking by as a Stalking-horſe, and the *Arab* imitating the Cry of the Gazel till he get within Shot: Theſe *Arabs* are called *Selebee*. At the Well came to us ſome *Arabs* that were making Aſhes of the ordinary ſort of Weeds call'd *Chuddraiſe*, *Ruggot* and *Cuttaff*; theſe they cut and dry, and putting them into a Pit, ſet Fire to them, and the Aſhes cake at the bottom. The Aſhes they carry to *Eglib* and *Tripoli*, to make Soap of: But the beſt ſort of Aſhes are made of the Weed *Shinon*, which grows about *Tadmor*, *Soukny*, *Tibe* and *Yarecca*; it grows like Broom in *England*, and in Shape reſembles Coral.

July 20. we roſe at four in the Morning, and Travelling two Hours E. S. E. we arrived at *Andrene*, where we found the Ruins of two or three Churches, and of a great Town lying in a large Plain; where having tarried about an Hour and an half, and taken ſome fragments of Greek Inſcriptions, which afforded no certain Senſe, but yet were evidently Chriſtian, we march'd again S. by E. and in about four Hours time came to a pleaſant Aqueduct call'd *Sheck-alal*; this Aqueduct is cut through the main Rock, for a great way from the Mountains; and where it ends, the *Arabs* have made a Garden, which afforded us Melons, Cucumbers, Purſlain, *&c.* In a Grott hard by, there dwelt

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an *Arab* with his Family; he had a dozen *Buffalo's*, which they used both for their Milk, and to Plow the Ground, Sowing both Wheat, and Barly: Hither the *Arabs* resort, when they have committed any Robbery about *Aleppo*, or *Hama*, and here they repose, and divide the Spoil.

July 21. we rose at four in the Morning, and riding two Hours South, we came to a Ruin call'd *Briadeen*; here we found the following Inscription on a Stone, good part in the Ground;

ΑΦΙΕΡωΘΗ ΑΑΙΑΤΝΔΙΟΥ ΤΟΥ ΑΜΦ ϹΤΟΥϹ
ΔΙΑ ΜΑΤϹΡΝΟΥ ΚΑ(Ι Π)ΑΠΠΟΥ ΚΑΙ ΜΑΙΚΟΥ ΚΝϑΤΜΝ
——— Υ ——— Ν

From hence going South-East, in four Hours more we came to a Well called *Costal* (which signifies a *Spring in Arab.)* Most part of our way through the Desart we were troubled with *Rat-holes* in great numbers, like Coney-boroughs, which by the sinking in of the Earth, very much incommoded our Horses and Mules. These *Rats* have at the ends of their Tails a bush of Hair, and the *Arabs* eat them all, excepting one part. From this Well we arose about four in the Afternoon, and began to ascend small Hills, covered with Trees, which, for the most part, were the small *Pistacho*'s which the *Arabs* pickle with Salt; but eaten green, are good to quench Thirst. We travelled on three Hours up the Hills, where we pitch'd that Night, having no other Water but what we carry'd with us; and at Night we had a small Shower of

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of Rain, a thing unusual in that Country at that time of the Year.

July 22. we rose by Two in the Morning, and Travelling E. S. E. we came by Eleven to a Well call'd *G'hor*, where we found it very Hot, and saw several prints of Horses Feet, so that we suspected some *Arabs* had newly past that way.

July 23. we rose by One in the Morning, and Travelling most East, we came to a large Plain, where we saw before us, on a high Mountain, a great Castle, call'd by the *Arabs Anture*. When we had travelled two or three Hours in this Plain, we espied an *Arab* driving towards us a Camel, with his Launce, so fast, that he came on a round Gallop, and we supposed him sent as a Spy: being come up to us, he told us he was of *Tadmor*, and that his Prince, the *Emir Melkam*, had that Day made Friendship with *Hamet Shideed* another Prince, and that together they had four hundred Men; so he kept us Company an Hour or two, and enquired of our *Muletters* if we were not *Turks* disguised, with intent to seize on *Melkam*; for we travelled with a *Bandiero*, the Impress being a *Hanjarr* or *Turkish* Dagger, and a Half-Moon. We told him we were *Franks*, which he could hardly believe, wondering that we travelled thus in the Desart, only out of Curiosity. Being come near to *Tadmor*, he went a little before us, and on a sudden run full speed towards the Ruins, we not endeavouring to hinder him. Our Guide told us he was gone to acquaint the *Arabs* who we were, and that we ought to suspect and prepare for the worst;

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worst; so we dismounted twenty of our Servants, each having a long Gun, and Pistols at his Girdle, and placed them abreast before us: we following at a little distance behind, on Horse-back, with Carbines and Pistols. In this order we proceeded, and came to a most stately *Aqueduct*, which runs under Ground in a direct passage five Miles, and is covered with an Arch of Bastard Marble all the Way, and a Path on both sides the Channel for two Persons to walk abreast; the Channel it self being about an *English* Yard in breadth, and ¾ of a Yard in depth. At 20 Yards distance all the way are Ventiducts for the Air to pass, and the holes are surrounded with small Mounts of Earth to keep the Sand and Dust from falling down. We marched close by these Mounts, which might serve us for Defence, expecting every moment that the *Arabs* would come to Assail us, having the disadvantage of Sun and Wind in our Faces: wherefore we Travelled hard to gain an Eminence where we might Post our selves advantagiously, and stop and repose a little, to consider what we had to do. The *Arabs* finding us to come on with this Order and Resolution, thought not fit to adventure on us, so we gained the Hill, from whence we might discern these vast and noble Ruins, having a Plain like a Sea for greatness to the Southwards of it. Here having refresh'd our Men, we fetch'd a little Compass and descended by the foot of a Mountain, on which stands a great Castle, but uninhabited. Here two *Arabs* came to us with Lances, one being Chiah to *Melkam*,

and

and we sent two to meet them; they gave the *Salam alika*, and ours returned the *Alica salam*, and advancing to our Company, told us the *Emir* had understood of our coming, and had sent them to acquaint us that he was our Friend, and that all the Country was ours. We sent back with them our *Janizary* and a Servant to visit the Prince in his Tents, which were in a Garden. In the mean time we dismounted at a watering Place amidst the Ruins, but did not unload till our *Janizary* and Servant returned with the *Emir's Tescarr*, assuring us of Friendship and Protection, a Writing which the *Arabs* were never known to violate before. With them came also one that belonged to the *Sheck* of the Town, for whom we had Letters from *Yusseffe Aga* the *Emeen* of *Aleppo*. He desired us for greater Security to pitch our Tents under the Town Walls, which is in the Ruins of a great Palace, the Wall yet standing very high, the Town within but small, and the Houses excepting two or three no better than Hog-sties. So we pitched in a deep Sandy Ground where we found it exceeding hot. Here we waited till three of the Clock without eating any thing, expecting the *Sheck* should have presented us according to the usual Custom of the *Turks* to their Friends, and have given some answer to the Letters we brought him; but on the contrary we found by the gesture of the People, that we had Reason to suspect them. Hereupon two of our Company believing that the want of a present to the *Emir* was the cause thereof resolved to adventure

venture to give him a Viſit, and taking the *Janizary* and one Servant, they carried him a Preſent of two pieces of Red Cloath, and four of Green, and ſeveral other things: Being come he welcomed them into his Tent, and placed the one on his right Hand and the other on his left. *Melkam* was a young Man, not above Five and Twenty, and well Featur'd, and a moſt Excellent Horſe-man; *Hamet Shideed*, the other Prince, was more elderly, as about forty Years of Age, and was not in the Tent, but ſat under a *Palm-Tree* near it. He treated them with *Coffee*, *Camel's-fleſh* and *Dates*, and enquired of their Journey, and the Cauſe of their coming: They told him 'twas only Curioſity to ſee thoſe Ruins; he ſaid that formerly *Solomon Ibnel Doud* Built a City in that Place, which being deſtroyed, was Built again by a ſtrange People, and he believed, that we underſtanding the Writing on the Pillars, came to ſeek after Treaſure, he having but ſix Moons before found a Pot of *Corra Cruſſes*. After this he went out of the Tent, leaving them ſmoaking Tobacco, to the *Janizary* and Servant, and told them, that never till that Day any *Franks* had been at that Place, and that now we knew the way through the Deſert, we might inform the *Turks* to their Ruin and Deſtruction, ſo that 'twould be convenient for them to deſtroy us all: But that we coming as Friends, he would only have 4000 Dollars as a Preſent, elſe he would hang them and the two *Franks* up, and go fight the reſt. This Meſſage being brought them, they wiſh'd they had excus'd themſelves from this

this Embaſſy, and anſwered, they could ſay nothing to that Demand, not knowing our Minds, but if he would permit them to go and ſpeak with the reſt, they would return an Anſwer. Hearing this, he threatned preſent Death, but at length gave leave to our *Janizary* to carry us a Letter from them, wherein they ſhewed the danger they were in, and earneſtly entreated us to redeem them, the Price ſet on them being 2000 Dollars, one half in Mony, the other half in Goods, as Swords, Cloaths, Tents, *&c.* which the *Emir* promiſed to eſtimate at their Worth.

This Letter amazed us mightily, and a little before it arrived, we underſtanding a little, and fearing more ill Treatment to our Friends, were getting ready to free them or die with them. The Garden where *Melkam* lay, was about half a Mile from the Tents, full of *Palm-Trees*, and had no Walls, but looſe Stones piled up Breaſt high about them, ſo we deſigned to have gone ſuddenly and given two or three Volleys on them, e'er they could get to Horſe; and the *Arab* know not how to Fight on Foot. And though they bragg'd they had 400 Men, we ſuppoſed 200 might be the moſt, and they not all Lances. But on receipt of this Letter, and the Servants telling us that they would certainly be cut off, if we endeavoured their Reſcue, we began to examin what Moneys we had, Cloaths and other Trade, and found we could not near make up that Sum. In this Confuſion came two *Arabs* to receive the things, and immediately Word was brought that the *Emir* would come and Viſit us; we

ſent

sent him Word, that if he came with more than two followers, we would not admit him: so he came with 2 Servants only; and in conclusion, we made him up in Money and Goods to the Value of 1500 Dollars. He valuing our Things as we pleased; his Design being not so much to compleat the Sum, as to take from us all we had. After this, about Sun Set, he returned us our two Friends, when the *Sheck* of the Town invited us to Lodge within the Town; which we found afterwards was with a design to have forced something from us: But we giving him to understand that the Emir had taken all already, and had left us only our Arms and the Cloaths on our Backs; which if they would have, they must Fight for: That Resolution daunted them, and away they went, promising us Barley for our Horses in the Morning. We kept good watch in the Night, and when Day broke, we began to consider how to clear our selves; we expected the Barly till Nine in the Morning, when it came, and the Emir himself came and gave us the good Morrow: We feared least they should pretend to stop some of us in the Gate-way, so we placed six of our Company to secure the Passage, 'till all the rest were got out, under pretence of taking an Inscription that was over the Gate. Being all got clear, we returned by the same way we came and arrived at *Aleppo July* 29. in the Morning. This *Melkam* told us, That if we had not submitted our selves to his Demands, he was resolved to Fight us after this Method: Loading 50 Camels with Baggs of

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Sand, and making ſmall holes in the Baggs for the Sand to drop out, he would drive theſe Camels abreaſt upon us before the Wind, that the Sand might blow in our Eyes, and we ſpending our Bullets on the Camels, might ſo be eaſily overthrown; we anſwered, that we believed he would not venture his Camels and Horſes to ſuch a Combat. He wondered extreamly when we talk'd of Shooting Birds flying, and Hares running.

This and other the like Violences uſed by this *Arab* Prince, made the *Baſſa* of *Aleppo* reſolve to deſtroy him; and not long after he cajolled him with the Hopes of being made King of the *Arabs*, and to draw him near the City, he veſted and careſſed ſome of his Followers: Which having its effect, the *Baſſa* ſurprized him in his Tents by Night, and ſoon after he was put to Death: This thoſe People were willing to believe the effect of their ſo abuſing the *Engliſh*, and might much contribute to the Security and good Uſage they found, that went the ſecond time on this Expedition.

We had not time to view theſe Ruins by reaſon of this uſage, though perhaps we might with ſafety. We only took one of the Inſcriptions as we paſt by, which was thus.

CЄΠΤΙΜΙΟΝ ΟΥΟΡΟΑΗΝ ΤΟΝ ΚΡΑΤΙCΤΟΝ
ЄΠΙΤΡΟΠΟΝ CЄΒΑCΤΟΥ ΔΟΥΚΗΝΑΡΙΟΝ
ΚΑΙ ΑΡ.. ΑΠΗΤΗΝ ΙΟΥΛΙΟC ΑΥΡΗΛΙΟC CΑΝΜΗC
ΜΑCCΙΑΝΟΥ ΤΟΥ Μ..ΛЄΝΑΙΟΥ ΙΠΠЄΥC
ΡΟΥΜΑωΝ ΤΟΝ ΦΙΛΟΝ ΚΑΙ ΠΡΟCΤΑΤΗΝ
ЄΤΟΥC Η Ο Φ ΜΗΝЄΙ ΞΑΝΔΙΚω.

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wherein the principal difference is in the Word ἀεχιτίτην, which in the Account already Published is read ἀεχιτέλην, which seems to signifie some peculiar Officer of the *Syrians*, as *Ducenarius* of the *Latins*, which perhaps those skill'd in the Oriental Customs and Languages may be able to expound.

As far as we could conclude from our Journeys, and the Position of the Ways taken by two good Compasses, the Distance of *Tadmor* from *Aleppo* is about a 150 English Miles, and the Course S. S. E. or rather somewhat more Southerly, considering the Variation of the Compass, which is above a half a Point Westward in these Parts.

The second Voyage, Anno 1691.

We set out from *Aleppo* for *Tadmor* on *Michaelmas-day*, being in all, Masters and Servants, thirty Men, well armed, having obtained a Promise of Security from *Assyne*, then King of the *Arabs*, and one of his own People for a Guide. This Day our Road pointed S. b. E. and in four Hours we came to a Fountain call'd *Caphir-Abiad*, leaving Old *Aleppo* about an Hour distant on the right Hand: Here we made but a very short stay, but proceeded to a better Fountain at the foot of a very high Hill, cover'd with loose Stones, the Ruins of a Village called *Broeder*, of which there was not one House remaining; and dining here, we advanced in an Hour and a quarter more, in the Afternoon, through a fertile open Place, to a Place called *Emghir*, famous for the best

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Wheat that is brought to *Aleppo*. This we made our firſt Stage; and mounting again in the Morning about five a Clock, in leſs than an Hour, paſt by an uninhabited Village, call'd *Urghee*, our Road pointing as before, through the fruitful Plain, even and pleaſant; but when we came to aſcend the Hills, where I reckon'd we entred the Deſart, and were to take our leave of Mankind, at leaſt of an inhabited Country for ſome Days, we had a troubleſome Paſſage, over looſe great Stones, without any appearance of a Road.

Our Guide had promiſed to conduct us through pleaſant Groves and Foreſts; but no ſuch thing appeared, unleſs we would beſtow that Name upon low withered Shrubs that grew in the Way, only one Tree we ſaw, which was of good uſe to us, ſerving as a Land-mark; and when we were come up with it, being left at a little diſtance on the right Hand, we gain'd the Proſpect of a remote ridge of Hills before us, and on the top of one of them an old Caſtle; this Caſtle, we were told, was known by the Name of *Gazar Ibn Wordan*; but what it anciently was, or in what Condition it is at preſent, I could not learn; therefore, not unwillingly, I turned my Eyes from it, to a little round Hill more on the left, by which we were to direct our Courſe, and about a quarter of an Hour from which ſtood a Sheck's Houſe, call'd *Sheck Ailha*, where we were to bait, with a Well of Water by it, but ſuch that we had but little *guſto* to taſte, though it ſerved our Horſes: All the Country hereabouts

abouts is stor'd with *Antelopes*, and there is a barbarous sort of People there, that have hardly any thing else to live upon, but what of these they can kill; and Necessity has taught them to be no mean Artists in their way, for they lie down behind the Stones, and as the poor harmless Creature passes, shoot them; and though their Guns be very ordinary, exceeding heavy and thick, with Match-Locks, yet are they such excellent Marks-men, that they kill many. That Morning we had Travelled about five Hours to reach *Sheck Ailha*'s; yet finding nothing to invite our stay there, (though there were four or five Tombs there not ill made, according to the *Turkish* mode) about one a Clock we mounted again, bending to the S. E. or something more Easterly. In our way we had two remarkable Prospects, one on the right Hand, of the Ruins of an ancient City call'd *Andreen*, and sometimes *Londrine*, which we were told had been formerly inhabited by *Franks*, and that there were many Inscriptions there; but it was too far out of our way, and withal something too dangerous to, for us to take a view of them: The other, on the left Hand, was another Tree, not far from which our Guide assured us of good Water, where we designed to take up our Lodging; the hopes of the Water made us slight a Well we past by on the Road, at which afterwards we repented we had not stay'd; for when we came up with the Tree, from which we had declined a great way to the right, we found our Water still at a very great distance, and were constrained to take

new Directions by a white chalky Hill, almost as far as we could see, and yet not much beyond the Place which was to be our Stage; on therefore we proceeded till Sun-set, very weary, and almost without hope of our coming to Water that Night, though at the same time near dead with Thirst; and which the more supriz'd us, our Guide was advanced a great way before, out of our sight, upon what design we knew not, but at his return, we found it was only to assure himself better of the way, and in an Hours time more he brought us to the side of a Bog, call'd by the Name of *Zerga*, where, such as it was, we found Water enough, but it was neither palatable nor wholsome, neither did the Ground seem proper to Sleep upon; yet we were forced to be content, there being no removing thence that Night.

October 1. We departed from *Zerga*, about two Hours before Sun-rise, and as soon as it was light, had the Prospect of a very high Hill, which was to be the bounds of our Travel that Day. To this we made as directly as we could look, finding nothing in our way observable either to arrest our curiosity, or to slacken our Pace, except a multitude of Holes made in the sandy Earth, by Rats, Serpents, and other Animals, which render'd our Riding a little troublesome; as we had found it upon the same Account the Afternoon before. About two Hours short of our Stage, we were shewn three little round Hills lying to the right in a direct line, known by the Name of *Tenage*; where we were told there was good Water, and its for that reason

son only they deserve the notice of those that Travel through such a thirsty Desart. The Place to which we directed our Course was called *Esree*, where we arrived about eleven a Clock, and found to our great Satisfaction, that our Guide had not deceived us in his Promise of excellent Water: Here we could discern the Foundations of a spacious City, and a piece of a thick Wall, built of a chalky Stone, was standing: This we judged to be the remainder of a Castle situated on the side of the Hill, so as both to defend and command the City. On the top of the Hill, above the Castle, stands the Ruins of a Fabrick, in appearance very Ancient, built of very hard Stone, yet exceedingly worn by the Weather; 'tis of an oblong Figure, pointing near to the N. E. and S. W. with only one Door on the Easterly end, which was once adorned with extraordinary good Carvings, of which there are still some remains, but the greatest part is either worn away, or purposely defaced; and those marks of ancient Beauty that remain are very obscure, and difficultly discernable; the outside of the Walls is beautified with Pilasters quite round, with their Pedestals and Capitals regular and handsom; but the Roof is all fallen down, and within appears nothing which looks either great or beautiful. The Situation, and placing the Door, hinders one from conjecturing it to have been a Christian Oratory, or Chappel, and therefore in probability it must have been a Heathen Temple; and if so, then the piece of the Castle Wall being of a softer Stone, must be much more mo-

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dern; the goodness of the Water brings the *Arabs* (who rove up and down the Desart) and the *Turk-men* frequently hither, which has occasion'd a great many Graves about the Temple; and some have had leisure, and, (which is more difficult to be imagin'd) skill enough to scratch in the Walls the first Letters of their Names, and many more in Arabick Characters, which we could make nothing of, no more than of an Arabick Inscription which lay hard by, but appeared not ancient.

October the 2d. We departed from *Esree*, about an Hour, or an Hour and an half after Midnight, and in six Hours and an half arrived at two Wells, the Water 18 Fathom and 2 Foot deep, known by the Name of *Imp malcha Giub*: Through the greatest part of this Stage we had a broad beaten Road, and where that was not discernible, we guided our selves by a ridge of chalky Hills, under which the Wells lay; the Water we found exceeding bad, and of so noisom a Scent, that we could not endure it so much as at our Noses; which made our Guide laugh at us, who told us, the *Arabs*, and even the King himself used to drink freely of it; which, I am sure, our Horses would not do, though they were under a necessity of drinking that or none: For our selves we had brought from *Esree* Water, sufficient for one Day at least. In our way hither we were shewn the true Plant which they burn for Soap-Ashes, which has no Leaves, but a soft juicy Stalk shooting into several Branches, and something resembling our Camphire,

phire, only it's more round than that; the Ashes likewise we saw, which were made not far from the Wells, which in burning run into Cakes, not much unlike the Cinders of a Forge, only they are heavier, and not so full of Pores, nor so hard as they are. In the Afternoon, we proceeded on our Voyage two Hours and an half, to a place called *Almyrrha*, passing rather between than over the Hills, though we had something of an ascent too; this we did to shorten our Stage the next Morning, for we were told beforehand we should find no Water upon those Mountains; so, for our Selves, we liv'd upon our old Stock, and our Horses were constrain'd to pass that Night without Water. Our Journy hitherto had been altogether Southerly, and but little varying to the Eastward of due South.

October the 3d. We mounted from *Almyrrha* between five and six in the Morning, making to the point of a high ridge of Mountains, through an uneven desart Way, frequently interrupted with Gutts and Channels, probably made by the descent of the Waters from the Hills, upon sudden Rains: We came to the ascent after about four Hours Travel, which we found not difficult; and when we were on the top, we had a pleasant Prospect of the Country, and what we rejoyced at most, we were shewn a little Hill, just behind which, we were told lay *Tadmor*. This Mountain was cover'd on both sides with great plenty of Turpentine-Trees, which was an Object very pleasing, having seen very few greens in our whole Journey: This Tree grow

grows very thick and ſhady, and ſeveral of them we ſaw loaded with a vaſt abundance of ſmall round Nut, the chief uſe whereof is to make Oil, though ſome eat them, and account them as great a Regalio as Piſtaches; their outward Husk is green, and more Oily than that of Piſtaches, and within a very thin Shell is contained a Kernel both in colour and reliſh very much reſembling them; but thoſe that eat them, ſeldom take the Pains to ſearch for the Kernels, but eat Husk and Shell all together, which have no ungrateful Taſte: From this Hill we had a tedious deſcent, and coming at the foot into a narrow Gut, winding this way and that between the Mountains, our Paſſage ſeemed very long, hot and tireſome; our want of Water however obliged us to proceed, whereof we now began to be in great neceſſity, eſpecially for our Horſes and Mules, who had none the Night before, nor none all that Day; with this we had hopes of being ſupplied two different ways; having had a ſhower of Rain the Night before, we hoped to have found Water ſtanding in the hollows of the Rocks; but either the Rain had not reach'd ſo far, or not in ſuch plenty as to fill thoſe naturally hewed Ciſterns: Our other expectation was from the Wells that were in the Road; but theſe our Guide advancing before and examining, met us with the unwelcome News, that they were all dried up, and the beſt Advice he could give us, was to pitch where we were, and content our ſelves with the remains of what we had brought two Days in our Veſſels, till our Horſes

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Horſes and Mules might be ſent to a Fountain two Hours out of our way, and being watered there themſelves, bring a freſh ſupply for us: This way, with ſome difficulty, we aſſented to, as more eligible, than weary as we were, to wander ſo far out of the Road, to have the ſame Ground to ſtage over again the next Morning: We reſolved therefore to ſend our Guide, with one or two of our Servants, in ſearch of the Water, and afterwards others with our Horſes, while in the mean time we pitch'd our Tents, it being then about two a Clock in the Afternoon: As ſoon as they were gone, a ſmall drizling Rain, which we had about half an Hour, encreaſed to a very plentiful Shower, which put us upon producing all the Veſſels we had to catch it as it fell from the Heavens, or ran down the Skirts of our Tents, our Horſes at the ſame time greedily drinking it from the Ground; but we might have ſpared our Pains, for in leſs than half an Hours time, our Camp was in a manner a-float, and we were ſurrounded with Water not only ſufficient for us, but for an Army of 20000 Men; thoſe hollow Gutts which we paſſed over without the leaſt appearance of moiſture, were, by the Cataracts which deſcended from the Mountains, become Rivers; and our Guide with thoſe Servants we had ſent out, that before rode over it dry, it being ſwoln to ſuch a Torrent, were put to ſome difficulty to repaſs it; ſo plentifully was God pleaſed to provide for us in our greateſt ſtreight; and which encreaſes both the Wonder and Mercy, the next Morning, all this great quan-

quantity of Water was paſt away, ſo that in about two Hour's Riding we could hardly perceive that there had been any Rain at all. This memorable Place is known by the Name of *Al-Wiſhal.*

October the 4th. From *Al-Wiſhal* we proceeded for *Tadmor*, ſome of the Ruins of which we perſwaded our ſelves we could ſee the Day before; perhaps it might be the Caſtle, which is more than half an Hour's diſtance from the City; our way lay Southward, but the Gut in which we travelled would not permit us to keep a direct courſe: However, in about an Hour's Walk, we paſt by *Antor* Mountains (our Guide call'd them *Toul Antor*) through a Gut or Rent, both ſides of which ſo directly anſwered one to the other, they would tempt a Man to believe they were ſeparated by Art, for an entrance into the Country; but it muſt have been a work of prodigious Labour and Charges to have cut through ſuch vaſt Mountains: And if any one was ſo hardy as to attempt it, he certainly grew weary of his Undertaking; for the Ground is levelled but a very little way, and almoſt as ſoon as we were well got within the open ſpace, we were obliged to aſcend another Hill, and ſo our Road continued over Hills and Valleys interchangeably all the way. On the left Hand, ſome diſtance from the Road, we ſaw a *Sheck*'s Houſe on the top of a high Hill, which made a better ſhow than uſually thoſe Buildings do, but being aſſured by our Guide it was a modern Structure, and eager too to come to the principal Place we aimed

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ed at, we would not prolong our Stage ſo much as to turn out of the Road, to ſee more of it: So preſſing ſtill forwards, we had hardly proceeded four Hours, when we came to the brow of a Rocky Mountain, ſeparated from that whereon ſtands the Caſtle of *Tadmor*, but by a narrow Valley: In which Hill, by the Way, appeared ſome Quarries of fine Stone, which probably might afford Materials to the curious Buildings in the City. Our Guide here (according to his accuſtomed Diligence) advanced ſome few Paces before us, and having eſpied three or four Country-Fellows driving Aſſes towards us, he cauſed us to make halt, to give them an opportunity to come nearer to us, reſolving to ſpeak with them, to know whether the Coaſt was clear, or if any of the Mountain *Arabs* were then at *Tadmor*, or not. After a little ſpace, with our Arms in our Hands, we marched in as good order as the Way would permit, down a rocky and ſteep Precipice, into the Valley; and our Guide making greater ſpeed than we could, gallop'd after the poor affrighted Country Fellows; who ſeeing ſuch a Company unexpectedly deſcend the Hill, left their Aſſes, and fled towards the City with all poſſible ſpeed: But they were ſoon overtaken, and brought back again to us; to whom they related the good News, that there was no Force at all in *Tadmor*, and that we might proceed with Courage, and ſee what we would there with all ſafety: Which News obtained them their Liberty to go again to their Aſſes, and we continued in our Way.

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Having tired our ſelves with roving from Ruin to Ruin, and romaging among old Stones, from which little Knowledge could be obtained; and more eſpecially not thinking it ſafe to linger too long in a Place, where ſhould the Mountain *Arabs* (who were Enemies to *Aſſyne Abaſſe*, our Friend) have Intelligence of us, they might either fall upon or endeavour to intercept us in our return; (for which reaſon alſo we had all along concealed our intended Courſe, under a pretence of proceeding forward to *Damaſcus.*) On *Thurſday*, *October* 8. about half an Hour after four in the Morning, we departed from *Tadmor*, being very well ſatisfied with what we had ſeen, and glad to have eſcaped ſo dreaded a Place, without any Trouble or Pretences upon us; but elſe with ſome Regret, for having left a great many things behind, which deſerved a more particular and curious Inſpection. Our Road lay almoſt due Eaſt, or a little enclining to the North; and on the left Hand, a ridge of Hills ſtretched along for a great ſpace, ſometimes about half an Hour diſtant from the Road, and ſometimes opening wider: Theſe Hills, we were told, were ſtored with rich Veins of divers Minerals, and afforded all that vaſt quantity of Marble, the Remains whereof we had ſeen at *Tadmor*; and it was from a Fountain call'd *Abulfarras*, at the foot of one of them, they fetch out Water, which we drank there; the Inhabitants contenting themſelves with that which runs from the Hot Springs. To the right Hand lay a vaſt barren Plain, perfectly bare, and hardly any thing green to be

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ſeen therein, except it were a few Gourds which our Servants found on the ſide of a little riſing-Ground, where there was no ſhew of any thing moiſt to feed them. Our Way being plain, we had the ſight of *Tadmor*, eſpecially the Caſtle, for above half our Stage, till we came to an old *Caphar* Houſe. We made indeed a very ſhort Days Journey, in the whole, finding a Fountain of excellent Water in about five Hours and a half's Riding; which, as it was a moſt welcom Refreſhment to us in ſuch a thirſty Deſart, ſo it was the only good Water we met with till we came to *Euphrates*, which was not till the third Day from this Place. At this Fountain we pitch'd, near to which is a Village, but almoſt wholly ruined and deſerted. 'Twas ſome time before any Body would be ſeen, for they were afraid of us; at length, three Men came out to our Tents, Spectacles of a miſerable Poverty, occaſion'd by their being frequently pillaged by the Mountain *Arabs*, and a great Duty they pay to *Aſſyne Abaſſe* their King, for his Protection: Three hundred Dollars they pay him Anually, when one would think the whole Village was not able to make up the Sum of one Hundred; yet being the remoteſt Place that was under his Juriſdiction, they often ſuffer by the Inroads of the other. The Name of the Place is *Tarecca*, a Name it received (as we were inform'd) from a Victory obtained there by the *Turks* over the *Mamalukes*.

October the 9th. From *Tarecca* we mounted early, and Travelling N. E. or near that Point, in ſeven Hours time arrived at *Soukney*

ney. The Road we found much like what we had the Day before, lying over a barren Plain; only we had Hills on both ſides, and ſometimes cloſing within half an Hours riding one of the other. The Village has its Name from the Hot Waters, (for ſo the Word imports,) which are of the ſame Nature with thoſe of *Tadmor*; herein they Bath frequently, the ſame little dirty Hole ſerving both for Men and Women; only they have ſo much Modeſty remaining, that they have different Hours for one and the other. To ſay the Truth, 'twas the only mark of Modeſty I could obſerve among them; in other reſpects they ſeemed a Confident, or rather Impudent Generation of People. Before we could pitch our Tents, they flock'd about us in multitudes, Men, Women, and Children; and of the laſt, many of them as naked as ever they came into the World, not ſo much as a Rag about them to cover them; and ſo numerous they appeared, that if we had reaſon to think *Tarecca* wanted Inhabitants, we had no leſs, to conclude *Soukney* over-ſtock'd. At this Place uſually reſides an Officer of *Aſſyne*'s, who is their Sub-Baſha, or Governor: He whom we found there, was call'd *Dor*, of a good Family among the *Arabs*, to whom we made a Preſent; and he civilly return'd it in Barley for our Horſes. Afterwards he came under our Tents, and invited us to an Entertainment; which, conſidering the Circumſtances of the Place, was very Splendid, though it was nothing but *Pilaw* at laſt, a little diverſify'd by the dreſſing; and, to ſpeak truly, I judge we could

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not have less than a Bushel of Rice set before us. His Palace, indeed was not very stately, there being few Cottages in *England* but might vie with it. To the Room wherein we were entertain'd, which, doubtless, was the best, if not the only one he had, we were forced to clamber, rather than ascend, by broken Steps made of Stone and Dirt. When we were got in, and commodiously seated after the *Turkish* Mode, it seemed large enough for about a dozen or fourteen People: At the upper end was a little space separated from the rest by a ridge made up of Earth, within which, I suppose, he slept. The Walls were mean; but the Roof much worse, having no other Covering but Faggots; so that certainly it could not be Proof against a Shower of Rain which fell that Night, and forced us out of our Tents, into an old ruinous *Cane*, for shelter: However, it served well enough for our Afternoons Collation; and we had come away with a good Opinion of the Gentleman's Civility, had he not afterwards endeavoured to make a Pretence upon us, and so would have forced us to pay dear for our Rice: He pretended to a Customary Duty of a Chequeen a Head of all *Franks* that past that Road; though probably neither he, nor his Grand-father before him, had ever seen a *Frank* there before. But when he understood by our Guide, that we were not so easily to be imposed upon; and withal, that we were *Assyne's* Friends, and in our Way to his Tents; and especially our Treasurer a Person he very much esteemed, who therefore would be sure

to acquaint him with any Exaction or Injury offer'd us, his Mouth was quickly stop'd, and he grew so sensible of his Error, that he sent to excuse it, and presented our Treasurer with a Fan of Black Ostrich Feathers; and not only so, but in the Morning came himself, and begging Pardon, desired nothing might be be said of what had past, and so conducted us about an Hour on our way. This Village pays to *Assyne* fifteen hundreed Dollars *per Annum*.

October the 10th. Continuing our Voyage still to the N. E. or something more Easterly, we found it another pleasant and easie Stage to another Village call'd *Tiebe*, so called (as they say) from the goodness of the Water, the Word signifying *good*: But we found them not so over excellent; they had the Taste, and were doubtless tinctured with the same Mineral, with those of *Sookney* and *Tadmor*, though not so strong. But the Village it self made a better Shew than usual; and the People appear'd of something better Fashion, and more civiliz'd, than those we had left. It's pleasantly situated, and makes a good appearance as one comes up to it; the Prospect being helped by a well built Steeple, to which is now adjoyned their Mosch: But I am apt to believe it the remains of a Christian Church, being built with more Art and Beauty than you shall easily find in Turkish Fabricks: And there are also several Ruins about it, which speak it to have been a more famous Place than now it is. Into the Mosch we were permitted to enter, without any Disturbance. This Village lies in one of the

Roads

Roads from *Aleppo* to *Bagdatt*, and pays to *Assyne* an Annual Tribute of one thousand Dollars. From hence we mounted again in the Afternoon, and proceeded about two Hours and a half farther, to shorten our next Days Stage. Having travelled this Day, in all, about seven or eight Hours, the Place we pitch'd at was a Fountain, and known by the Name of *Alcome*; but neither Town nor House by it: neither was the Water fit to be Drank, being of the same nature with that of *Soukney*, and almost as warm.

October the 11th. From *Alcome* we rose about an Hour and an half after Midnight, our Guide groping out the way, by the help of the Stars, which now bended more to the North, than formerly. As soon as it was light enough to look about us, we found our selves in a wild open Desart, the Ground, in some Places covered with a sort of Heath, and in others quite bare. Nor had we travelled long after the Sun was up, before, by the help of a rising Ground, we discovered *Arsoffa*, the Place whither we were tending, which gave us hopes we should quickly be there: But having a dry tiresome Plain to traverse, and the hot Sun causing our Mules a little to slacken their Pace, 'twas after ten a Clock before we reach'd it: And which was more vexatious still, finding no Water any where near, we were necessitated to proceed forward for the River *Euphrates*, which we found four Hours distant from hence. *Arsoffa*, or (as the *Arabs* call it) *Arsoffa Emir*, seems to be the remains of a Monastery, having no Town nor Village near it, and being

one continued Pile of Building of an oblong Figure, stretching long ways East and West, and enclosing a very capacious Area: At a distance it makes a glittering shew, being built of *Gypsine Stone*, or Rock-Ising-glass, resembling Alabaster, but not so hard; several Quarries of which we past by in our way to it. When the Sun shines upon it, it reflects the Beams so strong, that they dazle the Eyes of the Spectators. Art or Accuracy in the Workmanship we found none; and but very little Carved Work, and that mean enough; nay, the very Cement they made use of, is but little better than Dirt; so that it's no great Wonder to see it in Ruins, though it has not the appearance of any great Antiquity. Round about were the little Apartments or Chambers for the Monks, built Arch-wise, only one Story above Ground; but underneath are several Cells or Vaults, larger than the Chambers, which perhaps might serve for their Schools, or Working-houses. In the midst of the Area stand the Ruins of several Buildings, some of which seem to have been Cisterns for Water, and it may be the Bathing-Places: But the most remarkable was one, which probably was the Abbot's or Bishop's House, there having been something more Pains bestow'd upon it, than the rest: And another, which was the Relicks of their Church. This was formerly no unhandsom Structure, being built in the form of our Churches, and distinguish'd into three Isles, of which the middle one is supported by eighteen turned Marble Pillars, with Capitals upon them, not of

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Marble, but of a ſort of Clay, and Caſt into the ſhape they are in, but of a Colour exactly reſembling the Pillar it ſelf. That which perſwades to believe them Caſt, is a Greek Inſcription to be ſeen on all of them; the Letters whereof are not made by Inciſion in the Stone, but ſeem to be ſtamped, ſtanding out higher than the diſtance between them; and on one of them, by miſtake, they are ſo placed, as to be read after the Oriental manner, from the right Hand to the left. The Words are theſe, with the Crucifix before, as follows:

✠ ΕΠΙ ΕΕΡΓΙΟ ΕΠΙΕΚΟ. ΤΟ ΕΥΝΓΕΝ ΜΑΡΩΝΙΟ ΤΟ ΧΩΡΕΠΙΕΚΟ.

From hence our Guide led us to the River, by the aſſiſtance of two little Hills, which are known by the Name of *Aff Dieu*, our way lying North, and a little bending to the Eaſt. The ſight of the River was a very pleaſing Proſpect; and to our great comfort, we found the Water very clear, happening to be there before the Rains, and after the Snow-Waters (which ſwell and diſturb it in the Summer-time) were all paſt: And our Happineſs ſeemed the greater, having had ſo tedious and thirſty a Journey of at leaſt fourteen Hours, and neither our Selves nor our Horſes touch'd a drop of Water all Day. We pitch'd upon a Reach of the River, where it was not very broad, not being above half a Musket-ſhot over.

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October the 12th. This Morning, about Sun-rise, we proceeded on our Voyage, keeping along the Banks of the River, which, for the most part, led us West and North-West: And here we had pleasant Travelling, having the River on the right Hand, and Hills of Marble or other fine Stone, on the left; and delightful Groves of Tamarisk, Mulberry, and other Trees to pass through. Here every thing about us lookt fresh and verdant, and we met frequently Men and Women passing on their Occasions, a thing to which (in our former Stages) we had not been accustomed. We had also a pleasing Prospect of the opposite Shore, and could see a great way into *Mesopotamia*, but could meet with no Convenience to cross the River, which we were very desirous to have done. There are no Places of Note remaining upon the River either on one side or the other, only on the farther side we saw an old Castle call'd *Giabar*, which made a good Shew, being situated on the top of a Hill, and both for that and the way of Building, very much resembling that of *Aleppo*, only that is the larger, and in the midst of a City; this less, and has neither Town nor Houses about it. On our side we past by a *Sheck*'s House call'd *Abul-Rarra*, and the Ruins of a Town a little farther, where there was a square Tower built of a very ordinary Brick, but pretty entire. After we had left these Ruins, we rested to bait, under the Shadow of a Rock, wherein were many Apartments and Conveniences cut to lodge in, which I suppose are made use of in the Winter by the People, who

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who, during the Summer, pitch among the Trees by the River-ſide. In the Afternoon we continued our Journey as before, keeping always at a little diſtance from the River, till a little before Sun-ſet; when we came to a very convenient Place upon the Banks, where we took up our lodging for that Night, having travell'd between ſeven or eight Hours the whole Day.

October the 13th. This Day we had the ſame Satisfaction as the Day before, proceeding as near the River as the Road would permit; and having made a Stage of about ſix Hours, we reſted under the ſhade of the Tamarisk Trees by the River ſide, hoping to have found conveniency to have croſt it, but we could not. In our Way we ſaw nothing obſervable but the Ruins of a City call'd *Baulat*, where the *Turks* had formerly a *Sangiack*; but now there is never an Inhabitant in the Place, nor Houſe ſtanding, but the Ruins of Houſes, and an Octagonal Tower of a conſiderable height, *viz.* One hundred and ſeven Steps, and beautified on the outſide with Flouriſhes and an Arabick Inſcription round about: It's a handſome Structure, and probably the Work of the *Mamalukes*, ſince whoſe time little has been done to adorn, but abundance to deſtroy and waſt this Country. After Dinner, we mounted ſooner than ordinary; becauſe hoping to reach the Tents of *Aſſyne*, we were unwilling it ſhould be late when we arrived: yet we made it near Sun-ſet before we got to *Foy*, a Fountain by which he lay. We had travell'd ſtill on the ſame Point N. W. with

the Proſpect of the River the greater part of the Way; the neareſt Reach thereof not being above an Hours Riding from the Fountain. On the Road we met with ſeveral *Bandera*'s of the *Emir*'s Soldiers, who knowing our Guide, and underſtanding we were going to him, gave us a very courteous *Salam*, who elſe, perhaps, might have treated us with another ſort of Civility. The King's Tents ſpread over a large Plain, and took up ſo vaſt a Space, that though we had the advantage of a riſing Ground, we could not ſee the uttermoſt extent of them. His own particular Tent was pretty near the middle of the reſt, which were pitch'd about it, not in a circular manner, but ſtretching out in length as the Plain open'd, or for the better conveniency of a Current of Water, which from the Fountain ran through the midſt of them. 'Twas not at all diſtinguiſhable from the reſt, but by its bigneſs, and a little more Company about it, being all made of a ſort of Hair-Cloth, which ſeemed hardly a defence againſt Rain or Sun: But certainly they muſt find otherwiſe, elſe their Neceſſity (they ſpending their Lives in ſuch moveable Habitations) would have taught them to have contrived ſomething better. It cannot well be doubted but they are deſcended from the old *Arabs Scenitæ*, they living juſt after the ſame manner, having no ſettled Abode, but remove from Fountain to Fountain, as they find Graſs for their Sheep and Camels, and Water for them and themſelves. They love to derive themſelves from *Iſmael* the Son of *Abraham*; and it may be they are deſcended from

from him, but I believe they would be hard put to't to prove their Pedigree.

As ſoon as we alighted, we were attended by the Officers of the *Emir*, and conducted to a very noble Tent built after the *Turkiſh* Mode, and pitch'd next to his own. Hither he ſent to bid us welcome, and to enquire how we had paſt in our Voyage; and preſently after we had a Repaſt of ſeveral Diſhes of Meat ſet before us, to ſtay our Appetites till a more plentiful Supper could be got ready. But before Supper the King himſelf made us a Viſit in Perſon, bidding us Welcome to *Fay*, and asking what we had ſeen in our Travels that pleas'd us? how we liked *Tadmor?* and whether we had found a Treaſure there? For this Notion ſticks in the Heads of theſe People, That the *Franks* go to ſee old Ruins, only becauſe they there meet with Inſcriptions which direct them to ſome hid Treaſures. And therefore it's no unuſual thing with them, when they find a Stone with an Inſcription on one ſide, to turn that down to the Ground, that it might not be ſeen or read of any. But we aſſur'd him we went with no ſuch Expectations, but only out of a deſire to ſee the Place: Neither had we brought any thing away with us, but a piece of Porphyry Stone, which, upon his Requeſt, we ſhew'd him. We let him ſee too, a kind of rude Draught which we had taken of the Place; which he ſeemed to like. He made his Viſit the ſhorter, that he might not incommode us after our Journey; but deſir'd us we would live after our own Pleaſure and to our Satisfaction, and command freely what-

whatever the Camp would afford; ordering ſome of his People conſtantly to attend upon us. When there was mention made of our Deſign to be gone the next Morning, he anſwer'd, It muſt not be; himſelf was invited the next Day, to a great Entertainment, by one of his *Grandees*, and we ſhould accompany him: But the Day following, he would go out with us, and Hunt part of our Way towards *Aleppo*. When Supper was brought in, there was Victuals enough for three times our Number: A large Diſh of *Pilaw* in the middle, and twelve or fifteen Diſhes of ſeveral ſorts of Meat about it, all dreſs'd after their manner, but exceeding good, and ſuch as one might have fed heartily upon, had he not ſpoil'd his Appetite before. After we had Eat and Drank what we pleas'd, we roſe up, and our Servants ſat down in our Places; it being the Cuſtom of the *Arabs*, and *Turks* too, from the Higheſt to the Meaneſt, all to eat at the ſame Table: The beſt ſort ſit down firſt, and ſo in order till all are ſatisfy'd, and then what remains is carry'd away. We might, if we had pleas'd, have lodg'd under the ſame Tent where we eat; but having Tents of our own pitch'd, ſome of our Company choſe rather to retire thither, to avoid being diſturbed by too many Viſitants.

October the 14th. The next Morning, about ten a Clock, we were told that the King was gone to the Entertainment, and expected we ſhould follow him; and that two young Camels were kill'd, to furniſh this ſumptuous Feaſt; which is the higheſt piece of

of Magnificence and Greatness to which these People, whose greatest Riches consist in Camels, can arrive. The Tent was about a Furlong from ours; so mounting our Horses, we rode to it, and found it surrounded with a numerous train of Guests, three hundred at least, of different Sort and Quality: It was very large of it self, and to be still more capacious, 'twas left open toward the West. The King was seated at the North-end, about the midst of the Tent, upon a Place raised with Cushions and Quilts, and Carpets before him: Neither did he sit cross-Legg'd, as all the rest of the Company were obliged to do, but in a leaning Posture. They seemed to observe an exact Order in their Places; and when any Person of Note enter'd, those that were near his Place, rose up and stood till he had seated himself. But the far greatest part could not come within the compass of the Ring, but stood behind the Backs of the rest, leaving a spacious *Area* vacant in the middle. When we entred, they made room for us on the King's left Hand, which here is esteem'd the more Honourable; where we sat down in the same Posture with those about us, cross Legg'd upon a thin Carpet. Before mid-day, a Carpet being spread in the middle of the Tent, our Dinner was brought in, being served up in large Wooden Bowls between two Men; and truly to my apprehension, Load enough for them. Of these great Platters there were about fifty or sixty in number, perhaps more, with a great many little ones, I mean, such as one Man was able to bring in, strewed

ed here and there among them, and placed for a Border or Garnish round about the Table. In the middle of all was one of a larger size than all the rest, in which was the Camel's Bones, and a thin Broth in which they were boiled: The other greater ones seemed all filled with one and the same sort of Provision, a kind of Plumb-Broth, made of Rice, and the fleshy part of the Camel, with Currants and Spices, being of something a darker Colour than what is made in our Country. The lesser were, for the the most part, charged with Rice dress'd after several Modes, some of them having *Leben*, (a thick sour Milk) poured upon them. *Leben* is a thing in mighty Esteem in these Hot Countries, being very useful to quench Thirst: And truly we had need of it here; for I did not see a drop of any sort of Liquor, excepting a Dish of Coffee before Dinner, drank at this splendid Feast. Knives, Forks, Spoons, Trenchers, *&c.* are silly Impertient Things in the Esteem of the *Arabs*: However, we being known to make use of such things, had large Wooden Spoons laid before us. When the Table was thus plentifully furnish'd, the King arising from his Seat, went and sat down to that Dish that was directly before him; and so did the rest, as many as it would contain, which could not be much short of a hundred; and so without further Ceremony, they fell to thrusting their Hands into the Dishes, and Eating by Handfuls: Neither was there any occasion of Carving; only because those Dishes in the middle were too remote to

be

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be reach'd, there was an Officer on purpose, who stepping in among them, and standing in the Spaces designedly left for that end, with a long Ladle in both his Hands, helpt any one according to their Desire. When the King had eaten what he thought fit, he rose up and wash'd, and retir'd back to his former Seat; and we also did the like; others being ready to fill our Places. Nor did we continue much longer under the Tent in that numerous Croud; for *Assyne* perceiving us a little uneasie, and supposing we had now sufficiently satisfy'd our Curiosity, though perhaps not our Appetites, told us we might take our Liberty, and if we thought fit retire to our Tents. This Favour we gladly accepted, and without Ceremony returned, several of his Attendants waiting upon us back. Here we had another Dinner set before us; and having some of our own Wine and Water to Drink with it, it went down better with us than the famous Camel-Feast. In the Evening, the King mounted to see the flight of a new Hawk, and stay'd Abroad very late, his Hawk flying away: But she was afterwards taken up by his Falconer; otherwise he had not been in a good Humour all that Night, being a Man that delights very much in Sport. After his return from Hawking, we went to Wait upon him at his own Tent, to return him Thanks for his most courteous and royal Reception of us, and to desire leave to depart the next Morning. Here we found him surrounded with the chiefest of his People, and being placed

ced again on his left Hand, he entertain'd us with a great deal of pleasant Discourse; and ask'd such Questions, as shew'd him to be a Man of extraordinary Capacity and Judgment. As for Learning, they have no such thing among them, and therefore it's not to be expected that he should be a Scholar: But were he not a Person of more than common Prudence and Understanding, he could never have managed that Wild and Unruly People as he has done, ever since his Advancement to the Throne; which must therefore have been the more difficult, because as he came to it by the Deposition of his Father (though not immediately) who now lives with him as a private Man, so has he never wanted Competitors. To his Father he pays a great deal of outward Respect, but is forced to keep a very watchful Eye over him. After about an Hours Discourse, we were dismiss'd.

October the 15th. In the Morning, *Assyne* not being at leisure to go a Hunting, we proceeded on our Voyage Homewards, with a great deal of Alacrity; and finding nothing remarkable in our Road, in about 3 Hours and an half arrived at *Seray*. And hence, after a short Repast, we continued our Journey to *Sherby* Fountain, which took us up about the like space of Time. Here we accounted our selves as good as at Home, being at a Place with which we were well acquainted, and to which several times in the Year some or other of our Nation usually resort, either for Antelope or Hog-hunting, according to their Season; nor had we

we hence above seven or eight Hours to *Aleppo*.

October the 16th. Getting up pretty early in the Morning, we resolved to Hunt the greatest part of our Way Home, as we did; and Dining at the famous *Round-Hill*, whereon has been spent by the *English* more Money than would purchase a noble Estate round about it, in the Afternoon we arrived safe at *Aleppo*.

Some

Some Account of the Ancient State of the City of Palmyra, *with short Remarks upon the Inscriptions found there. By* E. Halley.

THE City of *Tadmor*, whose Remains in Ruins do with so much evidence demonstrate the once happy Condition thereof, seems very well to be proved to be the same City which *Solomon* the great King of *Israel* is said to have founded under that Name in the *Desart*, both in 1 *Kings* 9. 18. and 2 *Chron.* 8. 16. in the Translation of which, the *Vulgar Latin Version*, said to be that of St. *Jerom*, has it, *Condidit Palmyram in Deserto.* And *Josephus* (in *lib.* 8. *Antiq. Jud.* wherein he treats of *Solomon* and his Acts) tell us, that he Built a City in the Desart, and called it *Thadamora*; and the *Syrians* at this Day (says he) call it by the same Name; but the *Greeks* name it *Palmyra.* The Name is therefore Greek, and consequently has no relation to the Latin *Palma*, and seems rather derived from Παλμυὸς or Πάλμυς, which *Hesychius* Interprets βασιλεὺς πατὴρ: or perhaps from Παλμύτης, which (according to the same Author) was an *Egyptian* God. Neither is the Word תדמר but תמר that in Hebrew signifies a *Palm-Tree.*

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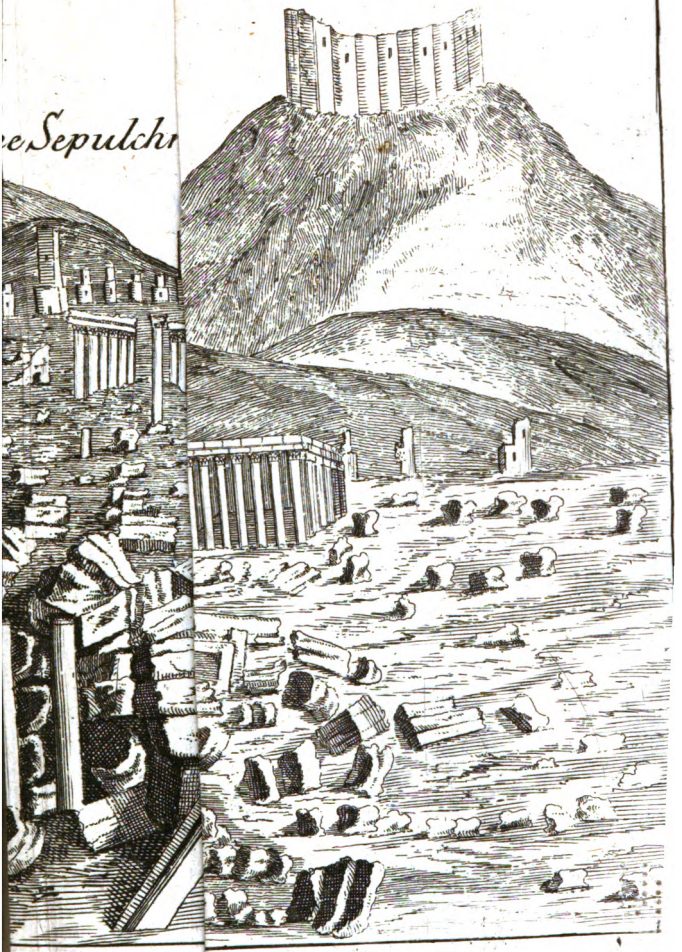
The Castle



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History is silent as to the Fate and Circumstances of this City, during the great Revolutions in the several Empires of the East; but it may well be supposed, that so advanced a Garrison as this was, being above three hundred Miles from *Jerusalem*, continued not long in the Possession of the *Jews*, who immediately after *Solomon*, fell into Civil Dissention, and divided their Force: so that it is not to be doubted, but that it submitted to the *Babylonian* and *Persian* Monarchies, and afterwards to the *Macedonians* under *Alexander* and the *Seleucidæ*. But when the *Romans* got footing into these Parts, and the *Parthians* seemed to put a stop to their farther Conquests in the *East*, then was this City of *Palmyra*, by reason of its Situation, being a Frontier, and in the midst of a vast Sandy *Desart*, where Armies could not well subsist to reduce it by Force, courted and caressed by the contending Princes, and permitted to continue a Free State, a Mart or Staple for Trade, for the Convenience of both Empires, as is abundantly made out from the Words of *Appion* and *Pliny*.

Appian (*lib.* 5. *de Bellis Civil.*) tell us, that *M. Antonius*, after his Victory at *Philippi*, about forty Years before *Christ*, sent his Horse to Plunder the City of *Palmyra*, pretending only that they were not sufficiently in the *Roman* Interest. ὅτι Ρωμαίων μὲν Παρθυαίων ὄντες ἔφοροι ἐς ἑκατέρους ἐπιδεξίως εἶχον, and that being Merchants, they conveyed the *Indian* and *Arabian* Commodities by the way of *Persia* into the *Roman* Territories; though the true reason were their Riches: But the *Palmyrenes*

being informed of the Design, took care to prevent them, and so escaped Plunder: And this Attempt of *Antony*'s occasioned a Rupture between the two Empires. The Words of *Pliny* (*lib.* 5. *Nat. Hist.*) above an hundred Years after, do likewise testifie that this City then continued in the same Enjoyment of their Liberties. They being very much to the purpose, I thought fit to Copy them: *Palmyra Urbs nobilis situ, divitiis soli atque aquis amœnis, vasto undique ambitu arinis includit agros, ac velut terris exempta à rerum Natura; privata sorte inter duo imperia summa Romanorum Parthorumque, & prima in discordia semper utrinque curâ.* Whereby it appears not only that it was a Common-wealth in the time of *Vespasian*; but the situation thereof is truly described, as it were an Island of fertile Land, surrounded with a Sea of barren Sands. Such Spots *Strabo* tells us were frequent in *Lybia*, and by the *Egyptians* were called *Abases*; whence possibly the Name of the *Abassyne* Nation is derived.

With these Advantages of Freedom, Neutrality and Trade, for near two Centuries, 'tis not strange that it acquired the State and Wealth answerable to the Magnificence of these noble Structures. But when the *Romans* under *Trajan* had made it appear, that there was no comparison between the Puissance of the *Parthians* and them, (*Trajan* having taken *Babylon* and *Ctesiphon* the then Seat of the *Parthian* Empire,) the *Palmyreni* were at length determined to Declare for the *Romans*; which they did, by submitting themselves to the Emperor *Adrian*, about the

the Year of Christ 130, when *Adrian* made his Progress through *Syria* into *Egypt*. And that Magnificent Emperor being highly delighted with the native Strength and Situation of the Place, was pleased to adorn and rebuild it: When, as 'tis likely, he bestowed on it the Privileges of a Colony *Juris Italici*, which it enjoyed (as *Ulpian* assures us.) And the Inhabitants of the City, in Gratitude, were willing to call themselves *Hadrianopolita*, ἐπιτιθέασι δὲ πόλεως ἀπὸ τῦ Αὐτοκράτορος (says *Stephanus.*) Nor is it unlikely that many of those Marble Pillars were the Gift of that Emperor, and particularly those of the Long *Porticus*; for that none of the Inscriptions are before that Date. And it was usual for the *Cæsars* to present Cities that had obliged them, with Marble Pillars to adorn their Publick Buildings. These here were not far to fetch, the Neighbouring Mountains affording *Marble-Quarries*: But the Magnitude of the *Porphyry* Columns is indeed very remarkable, considering how far those vast Stones must have been brought by Land-carriage to this Place; it being not known that any other Quarries yield it, except those of *Egypt*, which lie about mid-way between *Cairo* and *Siena*, between the *Nile* and the *Red-Sea*: The Stone being very valuable for its Colour and Hardness, and so that it rises in Blocks of any magnitude required; *Quantislibet molibus cædendis sufficiunt Lapidicinæ*, (*Plin. lib.* 36.) And it is a great mistake of those who suppose it fictitious.

From the time of *Adrian* to that of *Aurelian*, for about an hundred and forty Years,

this City continued to flourish and encrease in Wealth and Power, to that degree, that when the Emperor *Valerian* was taken Prisoner by *Sapores* King of *Persia*, *Odenathus* one of the Lords of this Town (which Name occurs in several of these Inscriptions) was able (whilst *Gallienus* neglected his Duty both to his Father and Country) to bring a powerful Army into the Field, and to recover *Mesopotamia* from the *Persians*, and to penetrate as far as their Capital City *Ctesiphon*. Thereby rendring so considerable Service to the *Roman* State, that *Gallienus* thought himself obliged to give him a share in the Empire: Of which Action, *Trebellius Pollio* (in the Life of *Gallienus*) has these Words, *Laudatur ejus (Gallieni) optimum factum, qui, Odenatum participato Imperio Augustum vocavit, ejusque monetam, qua Persas captos traheret, cudi jussit: quod & Senatus & Urbs & omnis atas gratanter accepit.* The same in many Places speaks of this *Odenathus* with great Respect; and mentioning his Death, he says, *Iratum fuisse Deum Reip. credo, qui interfecto Valeriano noluit Odenatum reservare.* But by a strange reverse of Fortune, this Honour and Respect to *Odenathus* occasioned the sudden Ruin and Subversion of the City. For he and his Son *Herodes* being murder'd by *Maonius* their Kinsman, and dying with the Title of *Augustus*, his Wife *Zenobia*, in Right of her Son *Waballathus* then a Minor, pretended to take upon her the Government of the East, and did administer it to admiration: And when soon after *Gallienus* was murder'd by his Soldiers, she grasped the Govern-

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Government of *Egypt*, and held it during the ſhort Reign of the Emperor *Claudius Gothicus*. But *Aurelian* coming to the Imperial Dignity, would not ſuffer the Title of *Auguſtus* in this Family, tho' he was contented that they ſhould hold under him as *Vice Cæſaris*; as plainly appears by the Latin Coins of *Aurelian* on the one ſide, and *Waballathus* (which Name is often found in theſe Inſcriptions) on the other, with theſe Letters V. C. R. IM. OR, which *P. Harduin* has moſt judicouſly interpreted *Vice Cæſaris Rector Imperii Orientis*, but without the Title of *Cæſar* or *Auguſtus*, and with a Lawrel inſtead of a Diadem. But both *Waballathus* and *Zenobia* are ſtiled CЄBACTOI in the *Greek* Coins, made, 'tis probable, within their own Juriſdiction. Two of the *Latin* I have ſeen, and they are as deſcribed, excepting the Points.

But nothing leſs than a Participation of the Empire contenting *Zenobia*, and *Aurelian* perſiſting not to have it diſmembred: He marched againſt her, and having in two Battles routed her Forces, he ſhut her up and Beſieged her in *Palmyra*: And the Beſieged finding that the great reſiſtance they made, availed not againſt that reſolute Emperor, they yielded the Town; and *Zenobia* flying with her Son, was purſued and taken: With which *Aurelian* being contented, ſpared the City, and leaving a ſmall Garriſon, march'd for *Rome* with this Captive Lady: But the Inhabitants believing he would not return, ſet up again for themſelves, and (as *Vopiſcus* has it) ſlew the Garriſon he had left in the

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Place. Which *Aurelian* understanding, tho' by this time he was gotten into *Europe*, with his usual fierceness, speedily returned; and collecting a sufficient Army by the way, he again took the City without any great Opposition, and put it to the Sword, with an uncommon Cruelty, as he himself confesses in a Letter extant in *Vopiscus*,) and delivered them to the Pillage of his Soldiers. And it is observable, that none of the Greek Inscriptions are after the date of this Calamity, which befel the City in or about the Year of *Christ* 272, as far as may be collected, after it had been nine or ten Years the Seat of the Empire of the East, not without Glory.

In this appears also the great utility of Coins to illustrate Matters of History; for by them alone 'tis made out, that there was such a Prince as *Waballathus*, *Vopiscus* singly mentioning him by the Name of *Balbatus*: And from the same Coins it appears, that *Odenathus* had the Title of *Augustus* four Years, and *Waballathus* six at least; and that the first Year of *Aurelian* was the fourth of *Waballathus*. And by the Testimony of *Pollio*, *Odenathus* was declared Emperor of the East, *Gallieno* & *Saturnino Coss.* which was *Anno Christi* 263, and died before *Gallienus*, but in the same Year, *viz. Anno* 267, which, by the Coins, was the first of *Waballathus*. He therefore immediately succeeded *Odenathus*, and was without doubt his Eldest Son by *Zenobia*, and not his Grandson the Son of *Herodes*, as some learned Men have supposed: For if *Zenobia* could not endure that *Herodes*

Son

Son of *Odenathus* by a former Wife, ſhould ſucceed his Father in prejudice to her Children, and for that reaſon was conſenting to his Murther (as *Pollio* intimates in *Herodes* and *Maonius*,) much leſs would ſhe endure the Title of *Auguſtus* in the Son of *Herodes*, eſpecially when her own Sons were, as 'tis probable, elder than ſuch Grandſon. So that 'tis moſt likely that *Herennianus* and *Timolaus*, whom *Pollio* reckons among his XXX Tyrants, might be the Younger Sons of *Zenobia*, on whom alſo, out of Motherly Affection, ſhe might beſtow the ſame Titles of Honour.

But it muſt be obſerved, that in the Greek Coins, this Prince's Name is uſually written ΑΥΤ. ЄΡΜΙΑС ΟΥΑΒΑΛΛΑΘΟС ΑΘΗΝΟΥ (as *Triſtan* ſays he found it upon ſeveral Medals,) but *Patin* has the laſt Word only ΑΘΗ. I ſhould be glad to peruſe ſome of theſe curious Coins, eſpecially if found in or near *Palmyra*: but I am inclinable to believe that his true Name was *Æranes Waballathus* (as was one of his Progenitors, in Inſcription *Pag.* 91.) though perhaps the remoter Cities of *Aſia* and *Ionia* might by miſtake write it *Hermias*. And 'tis probable that ΑΘΗΝ might be for the firſt Letters of the Name of ΟΑΗΝΑΘΟС, which in Syriack begun with an *Aleph*; and the Δ was with thoſe People uſed inſtead of Θ, as we ſee the Month *Xanthicus*, written Ξανδικὸς in many of theſe Inſcriptions, which doubtleſs was pronounced like D *blæſum* or the Saxon D.

Though this City were at that time ſo roughly treated by *Aurelian*, yet it is certain

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that he did not burn it, or destroy the Buildings thereof: And though *Zosimus*, on this occasion, uses the Words τὴν πόλιν κατασκάψας, yet that seems only to relate to his demolishing the Walls and Defences of the Place; and that Emperors own Letter extant in *Vopiscus*, doth sufficiently shew that he spared the City it self, and that he took care to re-instate the beautiful Temple of the *Sun* that was there, which had been Plundered by his Soldiers. However, the Damage then sustained was never retrieved by the Inhabitants, and I do not find that ever this City made any figure in History after it: Yet the *Latin Inscription*, (Pag. 106.) seems to intimate, as if *Diocletian* had restored their Walls within thirty Years after. About the Year of Christ 400, it was the Head Quarters of the *Legio Prima Illyricorum*; and though *Stephanus* gives it no better Title than φρούριον, yet it appears to have been an Archbishop's See, under the Metropolitan of *Damascus*. To say in what Age, or from what Hand it received its final Overthrow, which reduced it to the miserable Condition it now appears in, there is no light in any of our Historians; but it is probable it perish'd long since, in the obscure Ages of the World, during the Wars of the *Saracen* Empire; and being burnt and desolated, it was never rebuilt; which occasions the Ruins to lie so entire, in a manner as they were left, neither being used to other Structures on the Place, nor worth carrying away, because of the great distance thereof from any other City.

As

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As to the Geographical Site of *Palmyra*, *Ptolemy* places it in the Latitude of *Tripoly* on the Coaſt of *Syria*, and four Degrees more Eaſterly, *viz.*

Παλμύρα . ος, ς'. λδ'.

and he makes it the Capital of ſixteen Cities in *Syria Palmyrena*, whereof *Alalis*, *Danaba* and *Evaria* were afterwards *Biſhops Sees*. *Pliny* places it CCIII Miles from the neareſt Coaſt of *Syria*, and CCCXXXVII from *Seleucia ad Tygrim* near *Bagdat*, (which Numbers are erroneouſly Printed 252 and 537 in moſt Editions, contrary to the Authority of the MSS.) *Joſephus* places it one Days Journey from *Euphrates*, and ſix from *Babylon*; which muſt be underſtood of Horſe-man's Journeys of about ſixty Miles *per diem*, it being more than ſo much from this City to *Euphrates*. *Ptolemy* alſo mentions a River running by *Palmyra*, which did not appear to our Travellers, unleſs that Gut or Channel wherein they were overflowed by the Rain-Waters, were the Bed thereof; which may, poſſibly, run with a conſtant Stream in the Winter or times of much Rain: But this (as the Rivers of *Aleppo* and *Damaſcus* at this Day) is made by *Ptolomy* to have no *exit*; but to go off in *Vapour*, and to be imbibed by the thirſty Earth of theſe Deſarts.

The *Æra* or Accompt of Years obſerved by the *Palmyreni* in theſe Inſcriptions, is evidently that of *Seleucus*, call'd afterwards *Dhilcarnian* or *Bicornis* by the *Arabians*, and by them kept in uſe till above 900 Years of Chriſt

Christ (as appears by the Observations of *Albatani*, published in *Numb.* 204 of the *Philosoph. Transact.*) and not that of the Death of *Alexander*. This may be demonstrated from the Inscription (*Pag.* 101.) wherein *Alexander Severus* is stiled ΘΕΟC; that is, after the Death and Consecration of that Emperor, or after the Year of our Lord 234; and from the Name of *Julius*, who, when this Inscription was put up, was *Præfectus Prætorio*, (and could be no other than *Julius Philippus Arabs* who might be esteemed by the *Palmyreni* as their Country-man,) it follows, that it was in the last Year of *Gordian Anno Christi* 242 or 243: And that Emperor being soon after Murder'd by the Treachery of this *Philip*, who succeeded him: And his Treason coming afterwards to light, 'tis not strange that his Name was purposely effaced in this Inscription. The Date thereof, *Anno* 554, shews the beginning of this Accompt 311 or 312 Years before Christ, co-incident with the *Æra* of *Seleucus*, which was likewise observed by several other Cities in the East.

I shall not undertake the part of a Critick on these Inscriptions, but chuse rather to leave them to the more professedly skilful in that part of Learning, and shall only make some few Remarks on them, such as occurred whilst they pass'd through my Hands.

1. That the more ancient of these Inscriptions dated before the Year 500, do no where make use of *Roman Prænomina*, which yet are very frequent in them that follow; particularly *Julius*, *Aurelius* and *Septimius*, taken

taken up by these People out of Respect to the Emperors that bore those Names; and consequently that *Septimius Odenathus* (the Inscription of whose Tomb we have, *pag.* 91.) was most probably the same who was afterwards *Augustus*. That Name growing in use in the Reign of *Septimius Severus*, under whom or his Son *Caracalla* this *Odenathus* was certainly Born. And this Monument being erected by him whilst he was yet a private Man; and he afterwards attaining the Imperial Dignity, it was necessary the Inscription of his Tomb (which perhaps was that single one that was all of Marble) should be changed: Upon which occasion this Stone might be brought back into the Town, and after its Destruction, be clapt up casually over the little Gate-way where now it stands.

2. *Pag.* 100. ΚΑΤΕΛΘΟΝΤΕϹ ΕΙϹ ΟΛΟΓΕ-ϹΙΑΔΑ ΕΜΠΟΡΟΙΑΝ ΕϹΤΗϹΑΝ: *Descendentes Vologesiada Commericum stabiliverunt*, *Anno* 558, *sive Anno Christi* 247. Whereby it appears, that this People having had their Trade interrupted by the Wars between the *Romans* and the *Persians*, under *Gordian*; did now send an Embassy to the Court of *Saporas* King of the *Persians*, to get it re-established; which succeeded according to their Desires. *Vologesias* was a City built by *Vologeses* King of the *Parthians* in the time of *Nero*, on the *Euphrates* below *Babylon*. *Ptolemy* calls it Ουολογεσίας; *Stephanus*, Βολογεσία; *Ammianus Vologessia*; and *Pliny* lib. 6. *Vologesocirta*.

3. *Pag.* 101. ΚΑΙ ΟΥΚΟΝΙϹΩΝΑ ΦΕΙΔΗϹΑΝΤΑ ΧΡΗΜΑΤΩΝ. I submit it to the Judgment of the

the Criticks, whether this faulty Place may not be amended, by reading it ΟΥΚ ΟΙΚΕΙΩΝ ΑΦΕΙΔΗCΑΝΤΑ, *&c.* as likewise whether ΔΙCΜΑΛΚΟΥ in the same Inscription may not be instead of ΜΑΛΛΟΥ ΤΟΥ ΜΑΛΚΟΥ, which is the Ingenious Conjecture of that excellent Grammarian Mr. *William Baxter.*

4. *Pag.* 102. *Septimium Vorodem Procuratorem Ducenarium Augusti &* ΑΡΟΑΠΕΤΗΝ. This Word, if *Greek*, is faultily transcribed; and in one Copy I have seen, the O is very small, as I suppose it on the Stone, which might occasion the transcribing thereof without it in the former Voyage (*Pag.* 130.) So that 'tis most probable that 'tis the remains of some other Letter almost worn out. I conjecture it to have been ΑΡΤΑΓΕΤΗΝ, Π being taken for Γ, and that this *Septimius* was *Praefectus Annonæ*, having the Care to see that the City were sufficiently provided with Bread; which was a most necessary Officer in a Place that must needs be furnish'd with Corn from Abroad. And this same *Septimius*, (in the Inscription, *Pag.* 105.) is stiled ..... ΕΟΔΟΤΗΝ ΤΗC ΜΗΤΡΟΚΩΛωΝΕΙΑC. *lege* ΚΡΕΟΔΟΤΗΝ, which should signifie that he was the Distributor of the Emperor's Munificence in Flesh to the People. These Inscriptions bear Date in *April*, *Anno Dom.* 267. not long before the Death of *Odanathus*, who is herein stiled CΕΒΑCΤΟC: and 'tis not improbable but he might institute such a Custom, as at the Publick Charge, to give the People a Largess in Flesh on particular Days, to reconcile them to the Dominion of their Fellow-Citizen. This is certain, that *Aurelian*

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relian first instituted such a Custom of giving Flesh at *Rome*: The Words of *Vopiscus* are, *Idem Aurelianus & porcinam carnem populo Romano distribuit, quæ hodieque dividitur*; which Custom continued till the time of *Constantine*, when (according to *Zosimus*) one *Lucian*, who had this Office of distributing Swines Flesh at *Rome*, had Interest enough among the People to set up *Maxentius* for Emperor; and *Salmasius* assures us, that it was not discontinued till the time of *Heraclius*. It will not therefore seem strange, if I suppose *Aurelian* might find that Custom at *Palmyra*, and at his return from thence institute the like at *Rome*.

I am enclined to believe, that not only those two Inscriptions, *Pag.* 102, and the last of *Pag.* 103, but also that of *Pag.* 106, were in Honour of the same *Septimius Vorodes* who seems to have been a great Favourite of *Odenathus*, and was without doubt respected by the *Romans* on that account, whom I conclude to have effaced all the Memorials of *Zenobia* and *Waballathus*, insomuch that no one appears, among those many taken, that was set up during the six Years they reigned. The Name *Vorodes* seems the same with *Orodes*, which was the Name of the King of the *Parthians* that slew *Crassus*: and the *Persians* having, about forty Years before, expelled the Race of the *Arsacida*, 'tis not improbable but the Remains of that Royal Family might fly for Succour to *Palmyra*, and this *Vorodes* might be one of them.

5. In two other Copies of these Inscriptions; the first of *pag.* 104. is read, Σεπτιμιον Αιελ-

Αιδυλω Οδαινάθω, and not Οδαιθάθω as in the first Copy, and perhaps ought rather to be Οδαίναθον, as being the Inscription under a Statue of the same *Odenathus*, who is here, as well as on his Tomb, stiled *Illustrissimus Patricius*, but without a Date.

6. ΤΗΟ ΙΑΡΙΒωΛΟΥ ΘΕΟΥ (*pag.* 101. & 109.) It cannot well be doubted but that this *Deus Jaribolus* is the same with what *Gruter* (*pag.* 86.) and *Spon* (in the first of his Inscriptions) reads ΑΓΑΙΒωΛω. By the Figure of the Idol extant in *Spon*, it appears that this God was made with the Moon upon his Shoulders, and consequently was the *Deus Lunus* worshipped by the *Syrians*, whose Name, in the Language of that Country, could not be better expressed than by *Jarehbol* ירח בעל *Dominus Lunus*: Whence I am induced to believe, that *Gruter* mistook it ΑΓΑΙΒωΛω for ΑΓΑΙΒωΛω, the I in the beginning, and the lower part of the round stroke of the P, being effaced, so as to pass for Γ. I have taken care to have the Stone purposely viewed, as also to get from thence the exact Figure of the *Syrian* or *Palmyrene* Characters thereon, wherein there is an irreconcilable difference between *Spon* and *Gruter*. By the help of these, compared with two others taken at *Palmyra*, which I have by me, (they being all very near the same Date,) I hope we may be able, one Day, to make out the *Palmyrene* Alphabet: But it were to be wish'd our Travellers had transcribed them with more Curiosity, and taken more of them.

By the way, it is remarkable, that the Person who dedicated this Monument, in *Gruter* and

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and *Spon*, is stiled Λ. ΑΥΡ. ΗΛΙΟΔωΡΟC: and the same Name occurs in a broken Inscription which Mr. *Hallifax* omitted in his Letter to Dr. *Bernard*, as being too imperfect. It stood on the right Hand of the entrance to the little Temple described *pag.* 110. and was thus.,

ΛΟΥΚΙΟΥ ΑΥΡΗ[ΛΙ]ΟΥ ----- ΗΛΙΟΔωΡΟΥ ΤΟΥ.

And after a Blank of three lines all worn out except one single O, there followed,

[ΤЄΙ]ΜΗC ΧΑΡΙΝ ЄΤΟΥC------ ΜΗΝΟC [ΑΠ]ЄΛΛΑΙ[ΟΥ] And that imperfect one in *pag.* 104. seems to have relation to the same Name.

7. *Pag.* 111. ΜΑΛЄΝΤΟΝ ΚΑΙ ΑΓΡΙΠΠΑΝ *lege* ΜΑΛΗΝ ΤΟΝ ΚΑΙ ΑΓΡΙΠΠΑΝ, it being written ΜΑΛΗΝΤΟΝ, with H in the two other Copies I have seen, whereby the Sence is cleared.

8. *Pag.* 117. ΑΓΑΘΑΝΓЄΛΟC ΑΒΙΛΗΝΟC ΤΗC ΔЄΚΑΠΟΛЄΟC, *Agathangelus Abilenus, Decapolitanus, Patronymice.* There were in these Parts two Cities known by the Name of *Abila*; to distinguish which, the one was called *Abila Lysaniæ*, from the Name of the Tetrarch: St. *Luke*, ch. 3. 1. and is placed by *Ptolemy* (in his *Celosyria*) about mid-way between *Damascus* and *Heliopolis*: The other in *Judæa*, called *Abila ad Jordanem*, described by *Josephus* in many Places, to lie over-against *Jericho*, near the *Dead-Sea*. *Decapolis* was so called from its Ten Cities, enumerated by *Pliny* (*lib.* 5. 18.) And with them he reckons up, among others, the *Terrarchy* of *Abila*, in the same *Decapolis*: Which demonstrates the

Abila

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Abila Decapolis and *Abila Lysaniæ* to be the same Place. And tho' it cannot be denied, but that some of *Pliny*'s Ten Cities are not far distant from that near *Jordan*; yet it doth not appear that ever this other had the Title of a *Tetrarchy*. Here it is to be observed, that what *Pliny* calls *Decapolis*, *Ptolemy* makes his *Cœle Syriæ*; and the *Cœle Syriæ* of *Pliny*, is that part of *Syriæ* about *Aleppo*, formerly call'd *Chalcidene*, *Cyrrhistice*, &c.

What this Town of *Teibe* was anciently call'd, is not so easily conjectured: But if the Numbers of *Ptolemy* may be confided in, it is very near the Situation of a City he calls *Oriza*; and perhaps his *Adada* may be our *Soukney*, and his *Rhasapha* what is now called *Arsoffa*.

It is taken for granted, that Old *Aleppo* was anciently the City of *Berrhæa*, and there wants not ancient Testimony to prove it; which being granted, I think I may without scruple conclude, that *Andrene* (*pag.* 122. and 133.) is the Ruins of the City of *Androna*; and *Esree* (*pag.* 135.) that of *Seriane*, both mentioned in the Itinarary of *Antoninus*, in the Journey *à Dolichâ Seriane*. But this whole Country is laid about half a Degree more Southerly than it ought, by *Ptolemy*, who places *Berrhæa* in Lat. 36 *deg.* For the Meridian Altitude of the Tropical Sun at *Aleppo* is found there but 77 *deg.* whence the Latitude 36 *deg.* 30 *min.* as it was observed, *Anno* 1680. by three several Quadrants, in the presence of a curious Gentleman, to whom I am obliged for this Communication.

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By the same Observation a much greater Error is amended in the Latitude of *Aleppo*, in the *Rudolfine* Tables of *Kepler*, who supposes *Aleppo* to have been the ancient *Antiochia ad Taurum*, and accordingly places it Lat. 37. *deg.* 20 *min.* wherein he is followed by *Bullialdus* and others; and several Maps have copied the Mistake. But a much greater use of it is, that thereby we are assured, that the City of *Aracta*, wherein *Albatani* made the Observations we have Publish'd in the *Philosoph. Transact. Numb.* 204. was, without doubt, the same which is now called *Racca* on the *Euphrates*; of which Town an Account may be seen in *Rauwolf*'s Voyages, and which was not many Miles below the Place where our Travellers first came on the River: And if *Arecca*, in the Language of this Country, relates to Victory (as is said in *pag.* 143.) it was, doubtless, anciently the City *Nicephorion*, built by *Alexander* the Great; with which the Situation exactly agrees. The Latitude thereof was observed by that *Albatani* with great accurateness, about eight hundred Years since; and therefore I recommended it to all that are curious of such Matters, to endeavour to get some good Observation made at this Place, to determin the Height of the Pole there, thereby to decide the Controversie, whether there hath really been any Change in the Axis of the Earth, in so long an Interval; which some great Authors of late, have been willing to suppose. And if any curious Traveller, or Merchant residing there, would please to observe, with due care, the Phases of the Moons Eclipses at *Bagdat*, *Aleppo* and *Alexandria*,

dria, thereby to determin their Longitudes, they could not do the Science of Astronomy a greater Service: For in and near these Places were made all the Observations whereby the middle Motions of the Sun and Moon are limited: And I could then pronounce in what Proportion the Moon's Motion does Accelerate; which that it does, I think I can demonstrate, and shall (God willing) one Day, make it appear to the Publick.

The *Philosophical Reader* is desired to excuse our breaking in upon the Subject of these Tracts, by intermixing Historical and Philological Matters, as also our exceeding the Bounds of an Extract: But we hope the Curiosity of the Subject, joyned to the Desires of the *Royal Society*, may make an easie Apology suffice. There may be many other Instructive Remarks made thereon, which still deserve the Consideration of the Learned, and from such the Publick may yet expect a further Account.

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A Voyage of the Emperour of China *into the Eastern* Tartary, *Anno.* 1682.

THe Emperour of *China* made a Voyage in-Eastern *Tartary*, in the beginning of this Year 1682, after having appeased (by the Death of three Rebelious Kings) a Revolt, formed in some Provinces of the Empire: One of those revolted Princes, was Strangled in the Province, of which he had made himself Master: The second being brought to *Pekin* with the Principal Heads of his Faction, was cut in Pieces in the sight of the whole Court: The most Considerable among the *Mandarines*, acting with their own hands in this sad Execution, to Revenge upon this Rebel the Death of their Parents, which he had caust to be Cruelly Murdered.

The third which was the most Considerable, (and indeed the Chief of all the Revolt) had by a voluntary Death prevented his deserved Punishment, and so put an end to a War, which had lasted for Seven Years.

The Peace having been settled, by the Re-establishing in the Empire and all the Provinces, the Peaceable Injoyment of their Ancient Liberties: The Emperour departed the 23*d.* of *March* to go into the Province of *Leao-tum*, the Country of his Ancestors,

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with a Deſign of viſiting their Sepulchers, and (after having honoured them with the uſual Ceremonies) of proſecuting his Journey into the Eaſtern *Tartary*: This Journey was was about 1100 *miles*, from *Pekin* to the end of it.

The Emperour took with him his eldeſt Son, a young Prince of ten years old, which had already been declared Heir of the Empire: The three principal Queens went alſo in this Journy, each in their guilded Chariot; the principal Kings alſo which compoſe this Empire, were accompanying with all the Grandees of the Court: And the moſt conſiderable *Mandarines* of all the Orders, who having all a very great Train of Attendants, and very numerous Equipage, made a Court about the Emperour of more then 70000 Perſons.

It was his Will that I ſhould accompany him in this Journey, and that I ſhould be always near him, to the end I might make in his Preſence, the Obſervations, neceſſary for knowing the diſpoſition of the Heavens, the elevation of the Pole, the Magnetical Declinations of every Place, and for Meaſuring with Mathematical Inſtruments the height of the Mountains, and the diſtances of Places: He was well pleaſed alſo to be informed of what concerned Meteors, and many other Phiſical and Mathematical Matters.

In ſo much, that he gave Order to an Officer to carry upon Horſes ſuch Inſtruments as I ſhould have occaſion to make uſe of, and recommended me to the Prince his Unkle, who is alſo his Father in Law, and the ſecond

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cond Perſon of the State, he is called by a *Chineſe* Name, which ſignifies an Aſſociate of the Empire: He gave charge to him to cauſe all things to be provided for me which were neceſſary for this Journey, which this Prince performed with a very particular goodneſs, cauſing me to Lodge always in his own Tent, and to eat at his Table.

The Emperour ordered that they ſhould give me Horſes of his own Stables, to the End I might the more eaſily Change in Riding, and ſome of thoſe were of them He Himſelf had Rid, which is a Mark of very extraordinary diſtinction. In this Journey we always went toward the North-eaſt: From *Pekin* to the Province of *Leao-tum*, the Way being about 300 Miles is pretty equal: In the Province it ſelf of *Leao-tum*, it is about 400 Miles, but much more unequal by Reaſon of the Mountains; from the Frontier of this Province to the City of *La*, or the River which the *Tartars* call *Songoro*, and the *Chineſe Sumhoa*, the way (which is about 400 Miles) is very difficult, being croſſed ſometimes by Mountains extreamly Steep, ſometimes by Valleys of extraordinary Depth, and through Deſert Plains, wherein for two or three Days March we met with nothing. The Mountains of this Country are Covered on the Eaſt ſide with great Oaks and old Forreſts, which have not been cut for ſome Ages.

All the Country which is beyond the Province of *Leao-tum* is exceeding Deſert where nothing is to be ſeen on all ſides but Mountains and Valleys, and Dens of *Bears*, *Tigers*

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and other *Devouring* Beasts, you can scarce find a House, but only some *poor Reed Hutts*, upon the sides of some Brooks and Streams. All the Cities and *Burrow-towns* which I have seen in the Province of *Leao-tum*, and which are in very great Numbers are intirely ruined: One can see nothing thro' the whole Country, but old ruined Walls with Rubbel, Bricks and Stones. In the out-skirts of these Cities there have been of late some few Houses built, but without any order. Some of them made of Earth, others of the Rubbish of the old Buildings, the most part of them covered with Straw or Thatch, and but few with Tiles. There is now not the least Footsteps remaining of a great number of Towns and Villages which were here before the War. Because the petty King of the *Tartars*, who began to kindle this War having but a very small Army, caused the Inhabitants of those Places to take Arms, which Places he forthwith destroyed, that he might take from his Soldiers the hopes of ever returning again to their own *Homes.*

The Capital City of *Leao-tum*, which is called *Xin-Yam*, is a City very fair and pretty intire, it has as yet the Remains of an Antient *Palace.* It is (for as much as I was able to remark by divers Observations) of the Latitude of 41 *degrees* 56 *minutes*; that is to say, two *degrees* above *Pekin*, tho' hitherto both the *Europeans* and the *Chinese* have given that City the Latitude of 41 *degrees.* There is in that City no declination of the Magnetick Needle, as I have found by many reiterated Observations. The City of *Vla* which was almost the very Extream of our Journey,

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ney, lies in 44 *degrees* and 20 *minutes*. The compaſs there declines from the South to the Weſt one *degree* 40 *minutes*.

But to reſume the Proſecution of our Journey, from *Pekin* to this Extream towards the Eaſt there is made a new Way, by which the Emperour can commodiouſly March with his Horſe, and the Queens in their Chariots. This Way is about 10 *foot* broad, and as even and ſtreight as could poſſibly be made; it is extended above 1000 *Miles*, it has a little Raiſing on each ſide of about a Foot high every where equal and perfectly Parallel to one another; and this Way was as neat, eſpecially when the Weather was fair, as a Floor where the Husbandmen beat out their Corn in the Field; there were alſo certain Perſons along this way, who only took care to Smoth and Cleanſe it. The Chriſtians have no where ſo great care of Sweeping their Streets and publick Places where the Holy Sacrament is to paſs in the Proceſſions, as theſe Infidels have of cleanſing the Ways, where their Kings and their Queens are to paſs, every time they go out of their Palaces.

There was made for their Return a way like the former, they plained or levelled the Mountains as far as they were able, they raiſed Bridges over the Rivers, and for ornamenting them, they had extended on each ſide of them a ſort of Mats upon which they had Painted divers Figures of Animals, which had the ſame effect with Tapeſtry Hangings, with which the Streets are uſually hung in Proceſſion.

The Emperor did very ſeldom make uſe of this Way, being almoſt always in Hunting:

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ing: And when he accompanied the Queens he only Rode by the side of it, to the End that the great number of Horse which were in the Train that followed should not spoil it: He ordinarily Marched at the Head of this kind of Army. The Queens followed immediately in their Chariots, with their Train and their Equipage; they notwithstanding left some space between the King and themselves: After these Marched the Kings, the Grandees of the Court and the *Mandarines*, every one according to his Rank, behind these an infinity of Attendants, and other People on Horse-back brought up the Rear-guard.

As there was not one City upon all this Way, that could either Lodge so great a Multitude, or Furnish them with Provisions, and that the greatest Part of their Journey was through a Country very little Inhabited, so they were Necessitated to carry along with them all things that were Necessary for the Journey, and even Provisions of Victuals for three Months.

Upon this Account there were sent before by the Ways which were made on each side of the Emperors Way, an Infinity of Waggons, Cammels, Horses, and Mules for to carry the Baggage: Besides these the Emperor, the Kings and almost all the Grandees of the Court, had great numbers of Horses led, for the use of changing from time to time. I do not here reckon the Droves of Beefs, Sheep, and other Cattel, which they were obliged to have with them. And though this great Multitude of Men, Horses, and Droves

passed

paſſed by a way at a good diſtance from that of the Emperor, yet it raiſed ſo horrible a Duſt, that we always ſeemed to March in a cloud, and thence found it Difficult to diſtinguiſh thoſe that Marched 15 or 20 Paces from us.

The March was ſo well regulated, that this Army Incamped every Night upon the ſides of ſome River or Brook. 'Twas for this Reaſon that they cauſed the Tents and the Baggage neceſſary for this Incamping to ſet out very early in the Morning; and the Quarter-maſters upon their firſt arrival, Marked the Ground moſt proper for the placing of the Emperors Tent, of the Queens, of the Kings, of the Grandees, of the Court, of the *Mandarines*, each according to his Dignity, and according to the Dignity he had in the *Chineſe* Militia, which is divided into eight Orders or into eight Standards.

In the ſpace of three Months we paſſed about 1000 *Miles*, advancing towards the North-eaſt, and about as many in our return: In fine, we arrived at *Kam-Hay*, which is a Fort ſituated between the South Sea and the Mountains of the North: It is there where is the beginning of that ſo much Celebrated Wall, and which ſeparates the Province of *Leao-tum* from that of *Pekely*; from whence it is extended very far on the ſide of the North over the tops of the higheſt Mountains. When we entred this Province, the Emperor, the Kings, and the Grandees of the Court, quitted the great Way of which we have hitherto ſpoken, to take that of the Mountains of the North, which are extended without Interruption towards

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wards the North-Eaſt: There ſome D
were paſſed in Hunting, which was perfor
ed in this manner.

The Emperor choſe 3000 Men of his L
guard, Armed with Arrows and Javelin
and diſperſed them ſome on this ſide ſome
that; ſo that they poſſeſt themſelves o
great Circuit about the Mountains, wh
they Invironed on all Parts, which made a ki
of Circle whoſe Diameter was at leaſt 3000
ces; then Marching to draw nearer toget
with equal Progreſs and without quitting th
Range, what ever Obſtacles they found
the way (the Emperor having joyned wi
them ſeveral of the Captains, and of t
Grandees of the Court, for the better kee
ing of their Order) they Reduced this gre
Circle to another much leſs, which had
bout 300 *Paces* in the Diameter: So that a
the Beaſts which had been ſtayed within th
firſt, found themſelves taken in this laſt as i
a Net: for that every one ſetting his Fee
upon the Ground, they Locked themſelves to
gether ſo cloſely, that they left no meſhin
Place for them to make their Eſcape by. The
they Purſued them ſo Vigorouſly in this littl
Space, that the poor Creatures tired with th
violence of their Courſing, came and fel
down at the Feet of their Chaſers, and ſuf
fered themſelves to be taken without trouble
I ſaw taken in this Manner two or three
Hundred Hares in leſs then one day, without
counting an Infinite of Wolves and Foxes.
I have ſeen the ſame thing divers times done
in that part of *Tartary*, which is on the other
ſide of the Province of *Leao-tum*, where I re-
member

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member to have ſeen, among others, more than 1000 Deer ſo pent up by theſe ſort of Nets, which came to caſt themſelves into the Hands of the Hunters, having found no paſſage to ſave themſelves by: they kill'd alſo Bears, Boars, and more than 60 Tigers, but theſe are taken by other means, and with other Weapons.

The Emperor will'd that I ſhould be preſent at all theſe different Huntings, and he recommended to his Father in Law, in a moſt obliging Manner the having a particular care of me, and of giving charge that I ſhould not be expoſed to any danger in the Hunting of the Tigers, and the other fierce Beaſts; I was the only Perſon of all the *Mandarines* who was without Arms, and ſo near to the Emperor; though I made Light of the Fatigue during the time we were in our Journey, I found my ſelf ſo wearied every Evening when I got to my Tent, that I was not able to ſupport my Self; and I ſhould have diſpenſed with my ſelf divers times from following the Emperor, if my Friends had not counſel'd me to the contrary, and if I had not fear'd that he would have taken it ill if he ſhould have perceived it.

After having paſſed about 400 Miles in Hunting daily after this manner, we arrived at laſt at *Xyn-Yam*, the Capital City of the Province, where we ſtayed four Days.

The Inhabitants of *Coree* came to preſent to the Emperor a *Sea-Calf* which they had taken, the Emperor cauſed me to ſee it, and asked whither our *European* Books had ſpoken any thing of this Fiſh? I told him we had a

Book

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Book in our Library at *Pekin* which had e plain'd the Nature of it, and diſpatched pr ſently a Courrier to our Fathers at *Pekin*, w brought it me in a few Days: The Emperc was pleaſed to ſee that what was ſaid of th Fiſh in this Book, was agreeable to this whic he had ſeen, and cauſed it to be carried bac again to *Pekin* to be carefully preſerved.

During the ſtay which we made in this Ci ty, the Emperor with the Queens went to vi ſit the Sepulchers of his Anceſtors, whic are not very far diſtant, from whence he ſen them back to *Xyn-Yam*, to continue his owi Journey into the Eaſtern *Tartary*.

After ſeveral Days of Marching and Hun ting, he arrived at *Kirin*, which is diſtant from *Xyn-Yam* 400 Miles: This City is built along the great River *Songoro* which takes its ſource from the Mountain *Cham-pe*, diſtant 400 Miles towards the South: This Mountain ſo Famous in the Eaſt for having been the Antient Seat of our *Tartars*, is always covered with Snow, from whence it had its Name, becauſe *Cham-pe* ſignifies the white Mountain.

So ſoon as the Emperor ſaw it, he alighted from his Horſe and fell on his Knees on the Bank of the River, and bowed Himſelf three times to the Ground to Salute it: After which, he cauſed himſelf to be carried upon a glorious Throne of Gold, and ſo made his Entry into the City: All the People ran in a throng before him, teſtifying by their Acclamations the Joy they had to ſee him. This Prince took great Pleaſure in thoſe Teſtimonies of their Affection; and that he might

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might give them ſome Marks of his being very ſenſible of it, he was pleaſed to ſuffer himſelf to be ſeen by all, and forbid his Guards to hinder the People from approaching him, as they uſed to do at *Pekin*.

They make in this City Barks of a very particular manner: The Inhabitants keep always a great number of them ready fitted to Repulſe the *Muſcovites*, who come often into this River, to diſpute the Fiſhing of Pearls. The Emperor repoſed himſelf two Days, after which he Deſcended upon the River with ſome Lords, accompanied with more than 100 Boats, till he arrived at the City of *Vla*, which is the faireſt of all this Country, and which at other times hath been the Seat of the Empire of the *Tartars*.

A little below this City, which is at moſt about 32 *Miles* from *Kirin*, the River is very full of a certain Fiſh which reſemble near enough the Plaice of *Europe*: and 'twas principally for the taking the Divertiſement of Fiſhing, that the Emperor went to *Vla*; but the Rains coming on ſo ſuddainly, ſwelled the River ſo much, that all their Nets were broken and carried away, by the great Flood of thoſe Land Waters: The Emperor notwithſtanding ſtaied 5 or 6 Days at *Vla*; but ſeeing the Rains were not at all diſcontinued, he was obliged to come back to *Kirin*, without having injoyed the Pleaſure of Fiſhing: as we aſcended the River, the Bark wherein I was with the Emperors Father in Law, was ſo indammaged by the agitation of the Waves, that we were conſtrained to go a Shore, and mount a Chariot drawn by one Ox, which carried

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carried us very ſlowly to *Kirin*, the Rains not at all ceaſing during our Journy.

In the Evening when the Emperor was entertained upon all theſe Adventures, he ſaid Laughing, *the Fiſh have cheated us*; at length, after we had ſtayed two Days at *Kirin*, the Rains began to diminiſh, and we re-took our Way towards *Leao-tum*. I cannot here expreſs the Pains and Fatigues theſe had cauſed us to undergo, during the whole Courſe of this Journy, by Reaſon of the Ways which the Rains had Spoiled, and rendred almoſt impaſſable: we went without ſtaying over the Mountains and over the Vallies, and we could not paſs but with extream Danger, the Brooks and Rivers which were ſwelled by the Floods and Inundations which ran from all Parts: the Bridges were either overturned by the Violence of the Currents, or all covered by the great overflowing of the Waters. There were made in divers Places great Collections of Water, and of Mud, that it was almoſt impoſſible to be drawn out of it. The Horſes, Cammels, and other Beaſts of Burthen, which carried the Baggage could not advance, but remained ſticking in the Mud of the Marſhes, or died of tireing upon the Ways. The Men were not at all leſs incommoded, and all were enfeebled for want of Victuals, and of Refreſhments neceſſary for ſo great a Journy: Many of the Horſemen were obliged, either to lead their Horſes on Foot, who were no longer able to carry them, or to reſt in the middle of the Fields to ſuffer them to take Breath: And though the Quarter-maſters and the Harbingers, ſpared not their Pains, nor

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for Wood (which they cut on all ſides) to fill with Faggots all the bad Paſſages: Yet notwithſtanding after the Horſes and Chariots, which took the Van early in the Morning had quite paſſed, it was impoſſible to paſs after them: The Emperor himſelf, with his Son, and all the great Lords of the Court, were obliged more than once, to Foot it over the Mud and the Marſhes, fearing to expoſe themſelves to greater danger, if they ſhould have paſſed them on Horſe-back.

When they came to Bridges, or thoſe other obſtructions all the Army ſtayed: And as ſoon as the Emperor was paſſed, with ſome of the moſt conſiderable Perſons, all the reſt came together in a Throng, and every one ſtriving to paſs firſt, many were tumbled over into the Water: Others taking Ways more about, found them more dangerous, falling into Sloughs and Bogs, out of which they could not Recover themſelves. In fine, there were ſo many Inconveniencies to be met with, in all the Ways of Eaſtern *Tartary*, that the old Officers who had followed the Court above 30 *Years*, ſaid they had never ſuffered ſo much in any Journy.

It was on thoſe Occaſions, that the Emperor more than once, gave me the Marks of a Reſpect altogether particular: the firſt Day that we put our Selves in the way for returning, we were ſtay'd in the Evening, by a Torrent ſo great and rapid, that 'twas impoſſible to Ford it: The Emperor having by chance found a little Boat, which could not hold above 4 Perſons at moſt, paſſed firſt with his Sons, and ſome of the Principal Kings followed: All the other Princes, Lords, and

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Mandarines, which the rest of the Army attended, (in the mean while) with Impatience the return of the Boat, to carry them to the other side of the Torrent, because the Night approached, and the Tents had long before passed: But the Emperor being come back to us in such another Boat as the former, demanded aloud where I was? and his Father in Law having presented me to him, he added, let him come in and Cross over with us: So we were the only Persons that passed with the Emperor; and all the rest stayed on the Bank, where they must pass the Night *under the open Heaven:* The same thing happened the next Day almost in the same manner. The Emperor at Noon meeting with a like rapid and swelled Torrent, gave order that the Boats should be made use of for Transporting the Tents, Packs, and other Baggage till the Evening; then willed that I should pass alone with him and some few of his Attendants, having left on the other side all the great Lords, who were necessitated to pass the Night there. The Emperors Father in Law himself, having asked if he should not pass with me, since I Lodged in his Tent and eat at his Table? this Prince answered him, that he shoud stay, and he himself would take Order to give me what was necessary.

After we had past, the Emperor sitting on the Bank-side, made me sit by him, with the two Sons of the two petty Western Kings, and the first *Colao* of *Tartary*, whom he distinguished on all Occasions.

As the Night was Fair, and the Heavens very Clear; he willed me to Name in the *Chi-*

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ntese and *European* Languages, all the Constellations that then appeared above the Horizon, and he himself first named all those he already knew; then unfolding a small Map of the Heavens, which I had some Years since presented him, he put himself upon inquiring the Hour of the Night, by the Stars in the Meridian: Pleasing himself to shew to all the Knowledge he had acquired in these Sciences. All the Marks of his Favours which he so often gave me, even to the sending me to Eat from his own Table; these Marks I say were so Publick, and so Extraordinary; that the two Unkles of the Emperor, who bore the Titles of Associates of the Empire, being on their Return to *Pekin*, said that when the Emperor had some Regret or appeared somewhat Sad, he would Resume his ordinary Gaiety upon the sight of me.

I arrived at *Pekin* in perfect Health the 9th day of *June* very late, though divers were detained in the Way by Distempers, or were returned from their Journy, Hurt and Lamed.

I say nothing of what we did for Religion in this Journy, having reserved that for a particular Relation, by which it will appear, that by the Grace of our Lord, the Favours we received at the Court of *China*, produced considerable Fruits for the Church, and did not take away the Cross from the Missionaries.

I shall here add the *Tartarean* Names, and the distance of every Place through which we passed in the Eastern *Tartary*, from the Capital of the Province of *Leao-tum* even to *Kirin*, according to the order of Days which we Spent in this Progress. A *Topogra-*

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phick Chart may be made and inserted into the Map of the Province of *Leuwarden*, to be found in the Atlas of Father *Martin Martinius*, by changing only the *Latitudes* according to the Heights of the *Pole*, which we have before Specified.

I shall add one thing more which I Understood from the Inhabitants of *Ula*, to wit that *Nincrita* (which is a Place much Renowned in those Parts) is distant from *Ula* 700 *Chinese Stadia* (each of which is 360 *Geometrical Paces*) and that Imbarking at *Nincrita* upon the great River *Helcum*, into which the *Songoro*, and some other more considerable Rivers are discharged, and following the course of the River, which runs towards the North-East, or somewhat more to the North, they arrive in 40 Days Journy at the Eastern Sea, which is (as I believe) the Streight of *Anien*: I was told this by the General of the Militia which is at *Kirin*; and who had performed this Voyage himself.

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The Distances of the Places, thro' which we passed in the Eastern Tartary.

THe first Day we passed from *Xyn-Lam*, the Capital of the Province of *Leao-tum*, and we arrived at *Seao-Lysto*, so the Place is called in the *Chinese* Language. ——95. *stadia.*
The 2day we arrived at *Cha-cay Angha.* 85. *stadia.*
The 3*d.* day at another Torrent of the same Name. ——70. *stadia.*
The 4*th.* at *Kiaghuchen.* ——50. *stadia.*
The 5*th.* at *Feyteri.* ——80. *stadia.*
The 6*th.* at the Torrent of *Seipery.* ——60. *stadia.*
The 7*th.* at the Torrent of *Ciam.* ——60. *stadia.*
The 8*th.* at *Courou.* ——50. *stadia.*
The 9*th.* at the Burrow of *Sape.* ——40. *stadia.*
The 10*th.* at *Quaranny Pira.* ——40. *stadia.*
The 11*th.* at *Elten eme Ambayaga.* ——70. *stadia.*
The 12*th.* at *Ypatan.* ——58. *stadia.*
The 13*th.* at *Suayen ny Pyra.* ——60. *stadia.*
The 14*th.* at *Ylmen.* ——70. *stadia.*
The 15*th.* at *Seuten.* ——70. *stadia.*
The 16*th.* at the City of *Kirin.* ——70. *stadia.*
1028.

All this Course being 1028 *Chinese* Stadia, contains 369 Miles (each) of 1000 Geometrical Paces; the *Chinese* Stadium containing as I mentioned before 360 Geometrical Paces.

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A Voyage of the Emperor of China, *into the Western* Tartary, *in the Year*, 1683.

THe Emperor this Year, which is the 30*th.* of his Age, made a Voyage into the Western *Tartary*, together with the Queen his Grand-mother, which they call the Queen *Mother*; he departed the 16*th.* of *July*, in the Company of more than 60000 Men, and 100000 Horse. He positively resolved, that I, with one of the two Fathers that were at the Court of *Pekin*, the Choice of which he left to me, should follow him, I chose Father *Philip Grimaldi*; because he is the most known, and because he perfectly understood the *Mathematicks*.

Several Reasons prevailed with the Emperor to Enterprize this Journy. The first was, that he might keep his Militia during the Peace as well as in the Wars, in continual Exercise; and for this Reason it was, that after he had Establish'd a firm Peace in all the Quarters of this so vast an Empire; he recalled his best Troops hither out of every Province, and resolved in his Councel to make every Year Expeditions of this kind, in several Seasons, that by hunting of Deer, Boars, Bears, and Tigers, they might learn to overcome the Enemies of the Empire,

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or at leaſt to prevent the cooling of their Courage, or the degenerating from their Priſtine Valour, by the Luxury of *China*, in a too long Repoſe.

In effect theſe kinds of Hunting had more of the ſhew of a Military Expedition, than of one for Divertiſement, as I have already noted: The Emperor took in his Train, 100000 Horſe, and above 60000 Men, all armed with Arrows and Cimiters, divided into Companies and Marching in Battel-Array after their Colours, with the ſound of Drums and Trumpets: During their Hunting, they intirely inveſted the Mountains and Forreſts, as if they had been Cities which they deſign'd to Beleaguer; following in this the manner of Hunting uſed by the Eaſtern *Tartars*, of which I have ſpoken in my laſt Letter. This Army had its Van-guard and Reer-guard, and its Main Body, its Right Wing and left Wing, was commanded by ſo many Generals and petty Kings. There were ſpent more then Seventy Days before they were on their March, in bringing together all the Ammunitions of the Army upon the Waggons, upon the Camels, upon the Horſes, and upon the Mules, by reaſon of the Incommodious Ways. For in all the Weſtern *Tartary* (I call it Weſtern) not with Relation to *China*, which lieth in Reſpect of it Weſtward it ſelf, but with reſpect of the Eaſtern *Tartary*) there is nothing to be found but Mountains, Rocks, and Vallies; there are neither Cities, Towns nor Villages, nor ſo much as any Houſes. The Inhabitants Lodge under Tents, pitched on all ſides in

the open Fields. They are for the most part Graziers, and transport their Tents from one Vally to another, according as the Pastures are better. There they Pasture their Beefs, their Horses, and their Camels, they breed no Hogs, nor any of those other Animals, which elsewhere are fed in the Villages, as Poultry and Geese. But only of such as the Herbs, which an uncultivated Land doth Naturally produce, will serve to sustain. They pass their Life either in Hunting, or doing nothing. And as they neither sow nor cultivate the Earth, so they make no Harvest. They Live upon Milk, Cheese, and Flesh, and have a sort of Wine, not much unlike our Aqua-vitæ; with which they make their Feasts, and are often Drunk. In short they care for nought from Morning to Night, but to Drink and Eat; like the Beasts, and Droves which they Feed.

They are not without their Priests, which they call *Lamas*, for whom they have a singular Veneration, in which they differ from the Oriental *Tartars*; the most part of whom have no Religion, nor do they believe any God. For the rest both of the one and the other are Slaves, and wholy depend upon the will of their Masters, whose Religion and Manners they blindly follow: Like in this to their Droves, who go where they are lead, and not where they ought to go.

This part of *Tartary* lies without the prodigious Wall of *China*, about 1000 *Chinese Stadia*, that is to say more than 300 *European* Miles, and extends from the North-east towards the North.

The Emperor Rides on Horse-back, in the Head of his Army through these Desert Places, and these Steep Mountains, and far from great Roads, exposed all the Day to the Scorchings of the Sun, to the Rains, and to all the Injuries of the Air. Many of those which had been in the last War, assured me, that they had not suffered so much during all that as during this Hunting. In so much that the Emperor, whose principal Aim it was to give his Forces a Breathing, performed effectually what he pretended.

The second Reason he had of undertaking this Journy, was that he might keep the Western *Tartars* in their Duty, and to prevent any pernitious Designs that might be formed against the States.

It was for this that he entred their Country with so great an Army, and with so great Preparations for War. Having carried along several great Guns, that he might cause them to be Discharged from time to time into the Vallies, and by the Noise and Fire which issued out of the Mouths of those Dragons, which served to Ornament them, he might cast a Dread upon the Rout.

Besides this great Retinue, he would yet be accompanied with all the Marks of Grandure, with which he was invicorned at the Court at *Pekin*. To wit, with a Multitude of Drums, Trumpets, Timbals, and other Musical Instruments, which formed Consorts During his sitting at Table, when he entred the Palace, or when he went out. He caused all these to March with him, that he might by this outward Pomp Astonish these *Barbar-*

barous People, to strike them with a Fear and Respect of his Imperial Majesty.

For the Empire of *China* never had any Enemies more to be feared than these Western *Tartars*; which beginning on the East of *China* incompass it with an almost infinite of People, and keep it as it were continually beleagured on the North and West sides thereof; and 'twas to make a Bulwork against their Incursions, that a *Chinese* Emperor in antient Times caused this great Wall to be Built, which separates *China* from their Country. I have passed it four times, and have considered it very attentively. And I can say without Hyperbolizing, that all the seven Wonders of the World put together, are not comparable to this Work. And all that Fame has spread concerning it among the *Europeans*, is far short of what I my self have seen.

Two things have more especially caused my Admiration. The first is, that in this long extent from the East to the West, it passes in several places not only through vast Champains, but also above the tops of exceeding high Mountains, upon which it is raised by little and little, and fortify'd at certain Intervals with great Towers; not distant the one from the other more than two flight Shot. At our return I had the Curiosity to measure the height of it in one place by means of an Instrument, and I found that it was in that Place 1037 Geometrical Feet above the Horison; in such sort that 'tis hard to comprehend how 'twas possible to elevate this enormous Bulwork to the height

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we ſaw it, in places dry and full of Mountains, whence they muſt be obliged to bring from a great diſtance with incredible Labour, the Water, Brick, Mortar, and all the Materials neceſſary for ſo great a Work.

The ſecond thing that ſurprized me was, that this Wall is not continued upon the ſame Line, but bent in divers places following the ſituation of the Mountains, in ſuch manner, that inſtead of one Wall, one may ſay that there are three, which Inviron all this great part of *China*.

After all, The Monarch which in our Days hath re-united the *Chineſe* and the *Tartars*, under one and the ſame Government, has done ſome things more for the advantage of the ſecurity of *China*, than the *Chineſe* Emperor that built the long Wall. For after having reduced the Weſtern *Tartars*, partly by Artifice, partly by force of Arms: He has obliged to go and remain at 300 Miles diſtance from the Wall of *China*; and in this Place he diſtributes to them Land and Paſtures, whilſt he has given their Country to other *Tartars*, his Subjects which have their Habitation there at preſent: Notwithſtanding which, thoſe Weſtern *Tartars* are ſo powerful, that if they ſhould agree together, they might make themſelves Maſters of all *China*, and of the Eaſtern *Tartary*, even in the Face of the Oriental *Tartars*.

I have ſaid, that the *Tartarian* Monarch that conquered *China*, uſed an expedient for ſubduing the Weſtern *Tartars*. For one of his firſt Cares was to engage to his Intereſt by

by his Royal Bounties, and by demonstration of a Singular Affection, the *Lamas* (or *Priests*) these Men having a great Repute about all those of their Nation, easily perswaded them to submit to the Government of so great a Prince; and 'tis in consideration of this Service done to the Estate, that the present Emperor looks upon these *Lamas* with a favourable Eye, that he bestows Presents on them; and that he makes use of them to keep the *Tartars* in the Obedience which they owe him: Tho' at the bottom he hath nothing but Dis-esteem for their Persons, and looks upon them as a sort of Ignorant Fellows, which have not the least Tincture of the Sciences or commendable Arts, in which without doubt this Prince shews a Wise Policy, in so disguising his true Sentiments, by these exterior Marks of Esteem and Good-will.

He has divided this vastly extended Country into 48 Provinces, who have submitted and are Tributary to him. From whence it comes to pass, that the Emperor that Reigns at present in *China*, and in the one and the other *Tartary*, may justly be called the greatest and most powerful Monarch of *Asia*, having so many vast Estates under him, without being any where interrupted by the Territory of any Forreign Prince, and he alone being as the Soul which gives motion to all the Members of so vast a Body.

For after he had charged himself with the Government, he did not at all intrust the Care to any of the *Colaos*, nor to any of the great Men of his Court. He has not at all suf-

ſuffered, that the Eunuchs of the Palace, or any of his Pages, or any of the young Lords that have been raiſed by him, ſhould diſpoſe of the leaſt thing in his Houſe, or ſhould regulate any thing of themſelves: Which appears very extraordinary; eſpecially if we examin what Cuſtoms his Predeceſſors were wont to uſe.

He chaſtiſes with wonderful Equity the great Ones as well as the Inferiors; he deprives them of their Charges, and makes them deſcend from the Rank they held, proportioning always the Penalty to the heinouſneſs of their Fault. He takes Cogniſance of the Affairs which are tranſacted in the Royal Counſel, and in the other Tribunals, even to the cauſing them to render to him an exact account of the Judgments there given. In one Word, he of himſelf Diſpoſes and Orders all things; and 'tis by reaſon of the abſolute Authority which he hath thus acquired, that the greateſt Lords of the Court, and Perſons of the higheſt Quality in the Empire; even the Princes of the Blood, never appear in his Preſence, but with a profound Reſpect.

But to what remains, the *Lamas* or *Tartarian* Prieſts, of whom we have ſpoken, are not only reſpected by the People, but alſo by the Lords and Princes of their Nation, who for Politick Ends teſtifie to them a great deal of Friendſhip: This makes us fear that the Chriſtian Religion, will not find ſo eaſie an entrance into the Weſtern *Tartary*. They are alſo very powerful upon the Mind of the Queen Mother, who is of their Country, and

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who is at preſent Threeſcore and Ten Years Old; they are wont to tell her, that the Sect (of which ſhe makes Profeſſion) has no more declared Enemies than us. And 'tis a kind of Miracle, or at leaſt an extraordinary Protection of God, that notwithſtanding this, the Emperor, who has very much regard and reſpect for her, has not hitherto ceaſed to heap on us Graces and Honours, conſidering us after another manner than the *Lamas*.

During the Journey, as the Princes and the chief Officers of the Army went oftentimes to the Queen to attend at her Court; and that we alſo were advertiſed to do ſo likewiſe: We were willing firſt to conſult a Perſon of the Court, who loved us very much, and who ſpake for us to the Emperor in our Affairs. This Lord having enter'd the Princes Tent, told him what had paſſed, and preſently coming out again: *The Emperor* (ſaid he to us) *has given me to underſtand, that 'tis not at all neceſſary for you to attend the Queen as others do*; which made us to apprehend enough, that this Princeſs did not favour us.

The 3d Reaſon which the Emperor had for making this Journey, was for his Health: becauſe he knew by his Experience long enough, that when he is too long at *Pekin* without going Abroad, he cannot avoid his being attacked by ſeveral Diſtempers, which he prevents by means of theſe long Progreſſes. For during the whole time he never ſees any Woman; and that which is more ſurprizing, there appears not any one in all this great Army, except thoſe which are of the

the Retinue of the Queen Mother: 'Tis yet alſo a Novelty that ſhe has accompanyed the King this Year, it having not been practiced above once, when he took with him the three Queens as far as the Capital City of the Province of *Leao-tum*, to viſit the Sepulchers of their Anceſtors.

The Emperor and the Queen Mother pretend moreover by this Journey, to avoid the exceſſive Heats which are in *Pekin*, in the Summer during the Dog-days. For in this part of *Tartary*, there reigns during the Months of *July* and *Auguſt* ſo cold a Wind, eſpecially in the Night, that 'tis neceſſary to put on thick Cloths and Furs. The Reaſon that may be aſſigned for this ſo extraordinary Cold, is that this Region is very much elevated and full of Mountains: There is one among the reſt, upon which we continually aſcended, for the ſpace of 5 or 6 Days March. The Emperor being deſirous to know how much it ſurmounted the Plains of *Pekin*, diſtant about 300 Miles; at our return (after having meaſured the height of above a hundred Mountains that lay in our Road) we found that it had 3000 Geometrical Pace of Elevation, above the Sea that neareſtapproached *Pekin*.

The Salt Peter alſo with which theſe Countreys abound, may contribute to this great Cold, which is ſo violent, that in digging the Earth to three or four Foot deep, there are fetched out Clods all frozen, and peices of Ice.

Divers of the Petty Kings of the Weſtern *Tartary*, came from all ſides for 300 Miles; and

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and ſome for 500 Miles, together with their Children, to ſalute the Emperor. Theſe Princes, who for the moſt part know none but by their own natural Language, which is very different from that of the Eaſtern *Tartary*: Took regard of us, with Aſpects and Geſtures of a goodneſs very particular. There were ſome among them, who had made a Journey to *Pekin* to ſee the Court, and who had ſeen our Church.

One or two Days before we arrived at the Mountain which was the boundary of our Journey, we met a Petty King very aged, who returned from accompanying the Emperor, he ſeeing us ſtayed with all his Retinue, and enquired by his Interpreter, which of us was called *Nauboaij*; one of our Servants having made a ſign that it was I, this Prince accoſted me with a great deal of Civility, and told me that for a long time he had known my Name, and that he had deſired to know me. He ſpoke alſo to Father *Grimaldi*, with the ſame marks of Affection. The favourable Entertainment he gave us in this Re-encounter, gave ſome Reaſon to hope that our Religion might find an eaſie Entrance to thoſe Princes, particularly if care be taken to inſinuate into the Minds of thoſe Princes, by the means of the Mathematicks: Which if there ſhould at any time be a deſign to penetrate into their Country, the moſt ſure way for divers Reaſons, (which I have not the leiſure to explain here) will be to begin the entrance with the other *Tartars* more remote, which are not all Subjects of this Empire, from whom we may paſs on to

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theſe, advancing by little and little towards *China*.

During the whole Journey, the Emperor has continued to give us ſingular Tokens of his good Will, ſhewing us Favours in the ſight of his Army, which he ſhewed to none beſides.

One time meeting us in a great Valley, where we were meaſuring the height and the diſtance of ſome Mountains, he made a ſtay with the whole Court; and calling to us form a great diſtance, he demanded of us in the *Chineſe* Language, *Hao-mo?* that is to ſay, are you well in Health? And then asked us ſeveral Queſtions in the *Tartarian* Language, concerning the heighth of theſe Mountains, to which I anſwered alſo in the ſame Language; after which, turning to the Lords that were about him, he diſcourſed with them concerning us in very obliging Expreſſions, as I learned the ſame Night from the Prince his Unkle, who was then by his ſide.

He teſtifyed alſo his Affection to us, by cauſing often Meat to be carry'd to our Tents from his own Table, willing alſo that on ſome Occaſions we ſhould eat in his; and every time he did us this Honour, he had a regard to our Days of Abſtinence, and of Faſting, ſending us only ſuch Meats as we could uſe.

The eldeſt Son of the Emperor, after the Example of his Father, gave us marks alſo of his Bounty, for having been conſtrained to ſtay more than 10 Days, by reaſon of a fall from his Horſe, by which he was hurt in his right Shoulder; and one part of the Army

Army in which we were, having attended, whilſt the Emperor with the other, continued his Hunting, he was not wanting in ſending to us daily, and ſometimes twice a Day, during this ſpace, Food from his own Table. In fine, we look'd on all theſe Favours of the Royal Family, as the effects of a particular Providence which watched over us, and over Chriſtianity, for which we had ſo much the more occaſion to thank God, for that the affection of the Emperor, was never ſo conſtantly ſhewn to the Grandees of the Empire, nor to the Princes of the Blood.

As to what relates to the other particularities of our Journey, they are like to thoſe which happened to us the laſt Year, in the Journey to the Eaſtern *Tartary*, which I have fully deſcribed in my laſt Letter; that is to ſay, that we made uſe of the Emperor's Horſes, and of his Litters, that we lodged in the Tents, and eat at the Table of the Prince his Unkle, to whom he had particularly recommended us.

During more than 600 Miles, which we had paſſed in going and returning (for we did not return by the ſame Road) he cauſed to be made a great High-way croſs the Mountains and the Vallies, for the Queen Mother, who went in a Chariot; he cauſed alſo an infinite number of Bridges to be made over the Torrents, as alſo the Rocks to be cut, and the Points of the Mountains, with incredible Pains and Expences: Father *Grimaldi* ſhall deſcribe the other particulars in his Letters.

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As to the benefit which the Religion may draw from our Journey, I have spoken elsewhere; it sufficeth to say that the Emperor, to whose Will we cannot make the least resistance, without exposing all this Mission to a manifest Danger, has order'd us to follow him. I ceased not however to speak twice to that Lord of the Court, who is our particular Friend, to excuse us for the time to come from these long Journeys, and especially me, *who am not of an Age fit for it:* I tried to obtain at least that they would be contented to take only one of us; the Letters of our Fathers were daily brought us during the Journey, and I had the convenience of writing to them, by means of the Couriers which continually went to and came from the Royal City: I write all this in haste, that I may continue to give you an account of our Affaris.

P An

An Explanation, necessary to justify the Geography *supposed in these Letters.*

IT may seem wonderful, that the Author of these Letters makes mention in his former, of a kind of War between the *Oriental Tartars* and the *Muscovites*, notwithstanding the extream distance these People appear to be from one another in our Geographical Charts; but those who know how much the *Muscovites* have extended the Bounds of the Empire along the *Tartarian* Sea, will judge the thing less difficult, besides those who have seen these Countries, have made Discoveries much differing from those which our Geographers have informed us of hitherto. Very lately *Monsieur D'Arcy*, who commands one of the King's Ships, in the Fleet of *Monsieur Le Mareschal d' Estrees*, informed us, that having served in *Poland*, and having been made Governor of a Place towards *Moscovy*, the *Moscovite* Ambassadors in their return having pass'd by him, and being by him treated in such a manner as put them into a very good Humour; one of them shewed him a Chart of the Countries between *Moscóvy* and *China*: and told him, that from three Cities which he shewed him, whose Names were *Lopsla*, *Abasinko*, *Nerginsko*, all three under the Government of

of the great Dukes, tho' ſituated in the great *Tartary*, there was a way to *Pekin*, which was not more than 25 or 30 Days Journey. This Map it ſeems muſt be kept very ſecret in *Moſcovy*: For the next Day the *Moſcovite* was in diſpair, for having given it, ſaying that if it ſhould be known, he ſhould come to great Damage. The Officer being come back ſince into *France*, has given a Copy to the King, and another to *Monſieur Le Marquis de Signelay*. To confirm this, it may be added, what a *French* Man has writ from *Moſcovy* within this two Months, that they are actually raiſing Troops to go to War with the *Chineſe*.

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Some Observations and Conjectures concerning the Chinese *Characters. Made by* R. H. *R. S. S.*

WHether there ever were any Language natural, I dispute not: But that there have been, are, and may be, artificial Languages 'tis not difficult to prove. The *Chinese* Court Language is said to be of this kind, invented and spoken by the *Literati* and *Mandarines* throughout the whole Empire of *China*, differing from all the other Languages spoken in it, and I conjecture it to be nothing else but the Names of the Character by which they write and express their meaning, arbitrarily imposed by them, as we in *Europe* set names to Arithmetical Figures, not as we pronounce Words written with a litteral Character. This I Judge by comparing the Characters with the Names, Monosillables or Words they pronounce and read them with. Nor do they ascend above a Monosillabical Name, tho' the Character be composed of many single Characters, each of which hath its proper Sense and Monosillabical Name, and though the meaning of each Character, be an ingredient in the Notion of that compounded Character.

I

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I might give an Inſtance alſo in the Artificial Language Invented by the Late Reverend Biſhop of *Cheſter* Dr. *Wilkins*, which in all the accompliſhments of Language doth excel any one yet extant; to which is alſo annexed a real Character, Legible into that or any other Language Spoken. By which Language the Character and every additional Mark is effable, and yet the Character is not Litteral but Real, which is more curious and uſeful than the *Chineſe* way. Great pity it is that Diſcourſe is not publiſhed in Latin, that the Learned of *Europe*, may think of further Improving it, and bringing it to Uſe.

But whatever we may judge of Language, 'tis paſt diſpute that Writing was ever Artificial, how Antiently ſo ever it were in Uſe, and was the Invention of ſome thinking and Studious Men. 'Tis alſo evident that there have been various ways thought of for Expreſſing Significancy, according to the ſeveral *Genii* of the Perſons that were the Inventors. As may be gueſſed by the *Ægyptian* Hieroglyphicks, the *Chineſe* Characters, the *Mexican* Chronology, and the Literal Characters of ſeveral Nations, each of which ſeem to proceed upon differing methods, and from differing thoughts of Invention.

Which of theſe ways is the moſt Antient, is hard to prove. The *Ægyptian Mummies* and *Obelesks* prove a great Antiquity of the Hieroglyphicks, but yet the *Chineſe* Chronology (if to be credited) outſtrips the *Ægyptian* in pretence to Antiquity. For the *Chineſe* make *Fohi*, the firſt King of *China*, to be

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the inventer of their Character: And account him to have lived 2950 Years before the time of Chriſt, during all which time they pretend to have a certain and written Account in their Books: But their Account of the times preceding, they eſteem more Hypothetical and Fabulous; depending chiefly upon Fiction and Oral Tradition: As you will eaſily believe, when you underſtand how many Years they make it ſince the Creation of the World to the preſent Year 1686. which by the Account thereof in Mr. *Graves*'s Tranſlation of *Vulg. Beig.* will be found to be no leſs than eighty eight millions ſix hundred and forty thouſand one hundred and two Solar Years, there having been run out ſince the Creation 8864 *Ven.* of Years (every *Ven.* containing ten thouſand ſuch Years) and of the preſent *Ven.* this Year 1686. is the 102d. Which Account is abundantly more extravagant than the *Ægyptian*: But this need not invalidate their Hiſtory ſince *Fohi*; by which it appears that their Character was invented before the time of *Moſes* about 1400 Years, and even before *Menes* the firſt King of *Ægypt* about 500 Years. So that the *Chineſe* Invention of Writing or Characters, ſeems to be the moſt ancient of that kind. And the Book *Tekim* ſaid to be written by *Fohi*, the moſt antient Book.

Theſe Accounts made me the more deſirous to underſtand ſomewhat of the Reality and Truth, of what is related concerning the Knowledge of Literature and manual Arts, which theſe People of *China* are ſaid to have poſſeſſed ſo long a time in ſo great Perfection,

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fection, and without Alteration from the primitive Institution, especially upon the Account of their Art of Printing, which gave a hint to the Inventers of that admirable and most useful of all Inventions (for the Common Wealth of Learning) the way of Printing here in *Europe*. For *Paulus Jovius* affirms that the first occasion of that Invention in *Germany*, was a *German* Merchant, who returning out of *China* into his own Country, related what he had observed concerning the Practice of it as used in that Country. And tho' the *Chinese* way be wholly differing as to the method of composing, from what was invented and perfected here: Yet such an intimation was enough to an ingenious Artist to improve the first Contrivance, and make it more accomodate to the literal way of Writing with us: And as our way may possibly be now brought to the greatest Perfection for exactness and expedition, so without doubt must be their way of Printing any thing just as it is written, since I find, that they can ingrave their Stamps for a Sheet, as soon as one of our Compositers can set and correct a Sheet of our literal Character, and when so done, one Man alone will print off 1500 Sheets in one Day. And though 'tis generally believed to be much the same with our Wooden Cuts for Printing, yet from some Observations I have made, I believe it to be much another way; of which I shall hereafter say more when I describe their other Arts of Pottery, Staining, Varnishing, *&c.*

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By a *Chinese* Manuscript, out of which I transcribed the Lord's Prayer in the Year 1666 (when it was lost) I found that the Pronuntiations had no affinity with the stroaks of the Character. Whence I conceived it was either a numeral Character consisting of Numbers, or else a real Character, but not a literal, unless it were a literal Character of some other Language than that by which it was pronounced, whose pronunciation is lost though the significancy be retained, as if one should read what is written in *Hebrew* בראשיתברא into the *Latin* or *Roman* Language, *In Principio Creavit* instead of *Brasit bra*, or *Bereshith Bara* according to the *Masorethæ*.

Since that time I procured from *China*, a Dictionary of the Court Language, (as I found it written upon by the Person that sent it me from thence) but this whole Book (which I found was Printed) consisted only of the *Chinese* Characters without any Interpretation, or Pronunciation; however by the help of the Pictures of that, and a *Chinese* Almanack, I quickly found out their Characters for Numbers, and their way of Numeration, together with the Figure and Use of their *Abacus* or counting Board, for performing the Operations of *Arithmetick*, which I find pretty near to agree with that of the antient *Romans* (a Description and Picture of which is given by *Ursinus*, *Pignorius* and *Velserus*) save only, that, instead of Pinns and sliding Groves of the *Roman*, the *Chinese Abacus* hath Strings or Wires and Beads, to slide upon them; and that, instead of four

Pins

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Pins for Digits or Units, the *Chineſe* hath five Beads: So that it may ſeem to argue that the *Chineſe Abacus* was deſigned for a *Duodecimal* Progreſſion: Whereas that of the *Romans* was deſign'd for the *Decimal.*

One thing is remarkable in the *Chineſe*, that I find the *Abacus* to lie Horizontal, and their firſt place to be that next the left Hand, which I judge was alſo the firſt in their old way of reading, much the ſame with ours, though their other Characters are erected (as I ſhall by and by ſhew) from the poſture of Writing and Reading, which I conjecture they did at firſt make uſe of; and what does yet further agree with this conjecture, is remarkable in the newly mentioned Treatiſe of *Vulg. Beig.* That whereas the way of Writing and Reading uſed by the *Arabs*, was from the right to the left, the firſt place or the place of Units in their Numeration, was that next the right Hand; and ſo came firſt to be read: As did that of *China*, who as I conceive read the contrary way, from the left to the right.

It appears therefore by this Remark that we received this way of expreſſing Numbers from the *Arabians*, for that we keep the ſame poſture or poſition of places with them, tho' our progreſſion in Writing and Reading be the contrary way. And though we now read them alſo in the order they are ſet, twenty one, twenty two, thirty ſix, forty eight, *&c.* yet we retain alſo the other way of Pronuncing, *viz.* one and twenty, two and twenty, ſix and thirty, eight and forty, *&c.*

Now

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Now as the *Chinese* and *Roman Abacus* do much agree save only that they proceed contrary ways, so doth their way of expressing Numbers by Letters or Marks, one stroke or line signifying one; two lines two; three lines three; a cross ten; two crosses twenty; three crosses thirty; and so onwards to a hundred, which they expressed by a square Mark, and a cross with a stroak added for a thousand, as will appear by the Table annexed. And though the Characters are not all the same; yet the order and method of one agrees very near with that of the other, especially if I may be allowed my supposition, that the primitive way of Writing and Reading with the *Chinese* was Horizontal, and like the *Greek* and *Latin* or *European* way. Now that these are properly numeral Figures, or Characters, is manifest from this, that they have also word Characters for every Number, and they can (in the same manner as the *Romans* could) express a Number by their numeral Characters or Marks, and by their literal or word Characters; for as one single stroak signifies one or the first, so does the Character (*in the Plate marked with E*) signify the same thing, that is one or the first.

Having thus discovered their Characters for Numbers, and their way of Numeration, I was next desirous to understand something concerning their Language and Character.

Upon perusing all the Accounts I could meet with in Books, I found very little satisfaction as to what I principally inquired after

ter, which was first concerning the method of the Character, whether it consisted of a certain number of Marks methodically disposed like Letters in a literal, or like Numbers in a Numeral, or like Radicals in composite and decomposite Derivations? 'Tis said to be legible into a great many Languages considerably different one from another, but how this is effected is not related, only 'tis said that the Marks are of the nature of our Arithmetical Figures, (which are become almost Universal at least to us here in *Europe*,) and 2dly, concerning the number of these Characters? to which I found as little satisfaction; for, by some Relations I found that there were 120000, by others 80000, and by others 60000. And that a Man must be able to remember to Write and Read at least 8000, or 10000, before he will be able to express his meaning thereby, and that it is the business of a Man's whole Life to be throughly understanding in the whole Character; seeming to intimate that the Characters are immethodical, and there are as many primitive Characters as Words. Others tell us of various kinds of Characters which have been in use in several Ages. The first they say were *Hieroglyphical* like the *Ægyptian* or *Mexican*, consisting of the Pictures of Animals and Vegetables. But that the last are made up of Lines and Points, that they have no such thing as Letters or Syllables, but every distinct Word and Notion has a distinct Character, and that all are primitive or in compositi, so that if *Calepines* Dictionary were to be translated into the *Chinese*, 'twere necessary

sary to have as many distinct radical Characters as there are Words therein to be found, which accounts do seem to insinuate that this Character is the most difficult, and the most perplexed piece of Learning in the World, and depends wholly upon the strength of the Memory, in retaining the form and signification of a perplexed scraul. But whether they who gave us these Accounts did do it knowingly, is much to be doubted, my own Observations, at least, make me think otherwise.

I have not yet been able to procure sufficient helps to inform my self of the whole Art of Writing and Reading the *Chinese* Character, and I fear the Relations I have hitherto met with concerning it, were written by such as did not well understand it, however from such helps as I had, what I collected or do conjecture, I shall here relate. The best help I had, was the perusal of some Books Printed in *China*, with the pronunciation and signification of the Character in Latin Letters. By these Books then I observed, first, that every one of their Characters, whether consisting of more or fewer strokes or marks, were comprised within a certain square space, which is proportion'd according to the bigness of the size or manner of Writing, they design there to make use of, not that the whole Square is filled with every Character, but that no part of that Character does exceed the limits of that Square, so that tho' the Character have but one stroak, it takes as much room in the line as another that hath 20 or 30 several Marks, so that their Characters

racters are most exactly ranged in Rank and File, not unlike our Numbers in Arithmetick.

Notwithstanding which I find they do vary the bigness of the Character upon several Occasions, as in the Titles of Books, in the Titles of the Chapters or Sections, in the Comments, Explications or Notes, and upon several other occasions of variety, which they do at Pleasure with their Pencil, as we use variety of Letters in the Printing of a Book. The Titles of Books are generally in very large Characters, 6 or 8 times as big as those of the Book, the explication Notes ½ of the bigness, the Contents usually twice as big, and the like variety on several other occasions. I have met with also three several kinds of Characters, the most usually twice as big, and the like variety on several other occasions. I have met with also three several kinds of Characters, the most usual is the fixed or set square form. The second sort is the running Hand, in which the orders of the Courts are written by their Secretaries, of which I have seen 3 or 4 kinds, in which the Pencil is never taken off, till the whole Character be finished, and sometimes two or three are all written without break. The third seems to be somewhat like the flourishing great Letters, used by Scriveners at the beginning of Deeds, and by the *Germans* in the beginning of Chapters and Sections. They are compounded of the same strokes as the set Character, but modulated and shaped a little otherwise to make them appear the more beautiful and regular.

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A Specimen of each of theſe three are in the Plate. This third is made uſe of for Epitaphs, and other Inſcriptions on Buildings or Monuments. Theſe three ſorts I may call the three general kinds of Writing, but there is to be found an almoſt infinite variety of forms which Men uſe. This will be the more eaſie to be believed, when we conſider that the Printed Characters are exactly the ſame with the Written, inſomuch that every variety in each ſtroke, line or point, that is or can be made with the Pencil, is perfectly expreſſed in the Impreſſion, and the Form, Mode, or Hand, as we call it, of every Writer is exhibited ſo curiouſly, that I think it hardly poſſible to be performed after the way of wooden Cuts, as Authors affirm it is, but muſt be done after the method of our Copper Cutts, Printed by a Roul-preſs, which the way of expreſſing the Running or Court-Hand, does, I conceive, moſt evidently demonſtrate, and from divers circumſtances, I could evidently make appear from the Book it ſelf, which I cannot ſo well expreſs in Writing. Their Paper is generally very thin and fine, and very tranſparent, but brown, ſo that whatever is Written or Printed on it, is almoſt as legible on the back, as on the foreſide, which is of great uſe in the cutting of their Stamps. And thence they never Write or Print on both ſides of the ſame Leaf, but only on one, and to make the Leaf appear Printed on both ſides, they double the Sheet with the Printed ſides outwards, and putting the folded part forward, they Sew, Bind, or Stitch together, all theſe Sheets with

with the cut Edges, and upon whole Sheets inſtead of ſingle Leaves; juſt in the ſame manner as the Plate annexed to this Diſcourſe is Printed. They begin the Book on the top of the right Hand ſide of the Page that is next the right Hand, and they read downwards to the bottom, then begin the next Line towards the left Hand at the top, and ſo read to the bottom, and ſo proceed to the end of the Book. But this I ſuppoſe not to be the the primitive or firſt way of Writing or Reading. The Title of the Book is ſet firſt upon a whole Leaf, uſually of a thicker Paper, and ſome Title is likewiſe Written upon the folding or edge of every Sheet, where is ſet alſo the Number of the Book, and the Number of the Sheet, half of which appears on one ſide, and half on the other ſide of the fold.

As to the Character it ſelf, (I find by all the Books and Writings I have yet met with of that kind) that each of them is made up of a certain number of Strokes, Lines or Marks, which are very diſtinct from each other in their ſhape and poſition, and by reaſon that theſe are ſingle Srokes, and as I conceive uncompounded, I think they may be called the Letters, Elements or Particles, out of which the more compounded Characters are conſtructed or contexed. Theſe are the firſt kind of which there are but a very few, and I think thoſe I have deſcribed in the thirteenth Line of the Plate are all.

Two, three, four, or more of theſe joined together in a certain order and contexture

ture (in the doing of which there is a great Regularity and Order observed, which is not varied from, and all within the regular square Space) I conceive do make Syllables or primitive radical Characters, each of which have a primitive, single or distinct Notion or Signification as well as Sound, which is made much use of in the more compounded Characters or Words. Of this kind I take the Figures of the Numbers to be: If at least they are not single Letters like the way of expressing Numbers in the *Hebrew*, *Greek*, *Arabick*, &c. Languages, for though there may be two or three of the single strokes joyned together into a compound Character, it hinders not, but that it may still signify a Letter, as in the *Greek* ΑΑ.Δ.Ι.Γ.Π.Γ. In the Runick; where every Letter hath one upright Line and some other additional Marks: In the *Roman* I.L.F.E.O.Q.V.Y: Or it may signify a Syllable as in the *Æthiopick*, and in the *Hanscret*, and *Sunscrit* Languages and Characters: The first of which being the *Brackmans* Character we find in *P. Kircher*'s *China Illustrata*, described by *P. Roth* who studied it seven Years; and the second (being a literal Character used over all *India* by the Merchants) I have seen in a Transcript, brought lately out of *India* by a very Worthy Gentleman who lived there many Years, and had the Curiosity to cause to be Transcribed and Translated also into English, a Dictionary of their Language in their own Character: who did me the favour to let me peruse it.

In

In which Characters or ways of Writing a Vowel is always join'd with a Consonant into one compound Character to make it effable. And then the single Strokes may be taken for single ineffable Letters as are the Consonants, and the composition of two or three (of which one at least may be a Vowel) will make Syllables.

Of this kind, there are not so many in the whole *Chinese* Character, but that it will be easie enough to assign each a proper Monasyllable which shall only have 1 or 2 Consonants, and one or two Vowels; that is, the Consonants together, and not separate, either both behind the Vowel or Vowels, if it be a Dipthong or both after it or them.

Of this kind, I understand there are about 500, probably 8x8x8, or 512. I could enumerate a great many, and give you also the Name or Words by which they are pronounced as also their signification, but (as I said before) first, I conceive the present *Chinese* Language to have no affinity at all with the Character, the true primitive, or first Language, or Pronunciation of it, having been lost. And secondly, I want some further help to make a full and compleat Discovery: What I have learn'd from the Book of *Fohi* I shall give the next opportunity; which will explain the reason of the multiplication of 8. and the order and method of places in the Letter or Word square.

The third sort of Characters, is a decompounded sort being made up of two, three or more of those of the second kind, diminish'd proportionably in their size, either as to their

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length, or breadth, or both, from what they have in the ſame Writing when they are ſingle and fill up the whole Letter ſquare or Words ſquare. For there being ſeveral of them to be crouded together within the ſame ſquare, according as there are more in number, ſo they are always more ſqueezed together. In this decompound ſort, there is a regular Order obſerved in the placing of the ſeveral Characters of the 2d ſort; there being ſome that are always on the left ſide, ſome always on the right, ſome at the top, ſome at the bottom. Of which I doubt not but that they have a certain regular Method, which had we Dictionaries explained, would be eaſie enough to be diſcovered.

This method alone of crouding together all the Characters (how many ſoever go to make up the decompounded Character) into one ſquare (which is of the ſame ſize for the moſt Simple and for the moſt Compound) ſeems to be the great ſingularity, by which the *Chineſe* Characters differ from thoſe of all the reſt of the World. And this I conceive has been the reaſon why all People, and poſſibly even the very *Chineſe* themſelves have, and do believe it to be a real and not a literal Character: For if the primitive Language, or pronunciation of the Characters be loſt (as I conceive it is) and that the diſpoſition, order, method, texture, or manner of placing the more ſimple in the more compound Characters be alſo loſt, forgotten, or not underſtood; then the whole Characters becomes a real and not a literal Character: And an immethodical one to ſuch as want a method, that muſt be learned by-

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by roat, and depend wholly upon the ſtrength of the Memory to retain it. But I conceive it might be at firſt either a literal Character, and ſo the whole ſquare Character was compoſed of ſo many diſtinct Letters or Syllables, which compoſed the Word ſignified thereby; and ſo there might be a regular Order of placing theſe Letters in the Character, that is, that the whole ſquare being divided into ſo many parts, there was a Rule which was the firſt, ſecond, third and fourth place: ſo that there being placed in thoſe the ſeveral Letters that made up the Word, according to the order they had in the Word, it was eaſie by that Rule to Decipher the ſaid Character, and thence to find the Word and the Signification, as regularly as if the Letters had been written one after another, as moſt other literal Characters we know are at this Day written.

Or Secondly, it might be a real Character conſiſting of divers Marks or Letters, that expreſſed ſo many ſimple Notions, ſeveral of which joined together might make up the more compounded Characters, of which I have added ſome Examples in the Plate, which may be alſo made literal and pronounceable, tho' that conſideration were not made uſe of, when they were firſt invented. What things I have obſerved in my *Chineſe* Books that ſeem to reſpect this Method, I will give more particulars of by the next opportunity, by Printing a Specimen of the Book *Ye-kim* which explicated by theſe Notions will I conceive appear more intelligible, than by the Accounts we find given of it by

the *Chineſe* Commentators, and thoſe that have Tranſlated them into *Latin*, who ſeem not to have underſtood the true deſign thereof: For both the *Chineſe* and *European* Commentators aſſert it to be a Conjuring Book, or a Book to tell Fortunes by, and to be made uſe of by the *Chineſe* for that purpoſe; whereas by the ſmall Specimen I have ſeen of it, I conceive it to contain the whole Ground, Rule or Grammar, of their Character, Language and Philoſophy, and that by the underſtanding of it, the Foundation and Rule of their Language and Character may be without much difficulty Deciphered and Underſtood.

The preſent uſe of this Character, I conceive to be differing from what it was at firſt, both as to the poſition of Writing and Reading it, and as to the Expreſſion and Pronunciation thereof.

For the way of Writing and Reading it, I conceive might at firſt be exactly the ſame with that of the *Greeks*, *Romans*, *Engliſh*, and all other *European* Nations, and alſo the *Æthiopick* and *Coptick*. That is, they began at the top of the Page towards the left Hand, and ſo proceeded towards the right in the *Horizontal* Line to the end of it, and then began at the left end of the next Line under the firſt and proceeded with that in the ſame manner, and ſo with the next under that and all the remaining. Continuing to Write the Words of the Line towards the right Hand, and the Lines of the Page one under another till the whole Diſcourſe were compleated, joyning Leaf to Leaf one under another, after the ſame manner as the Rouls are

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are at preſent Writ, and as the *Volumina* were of the Ancients. And to make the parts of the Volume to be the more eaſily to be come at, without the trouble of rouling and unrouling as the Ancient *Romans* did, and we do with our Rouls, they contrived to fold them, like the folds of a Fan, forwards and backward: And ſo ſtitching them together, that the Written ſides might lie outwards, and open freely one from another, and the fair ſides might meet together, it came to make the preſent form of their Book, which being laid as we generally place our Books before us, they ſeem to begin at the top of the Page on the right Hand, and to proceed to the bottom, and then at the top of the next Line towards the left Hand, and deſcend as in the former; proceeding in this order with all the reſt, which way muſt needs be very inconvenient for Writing, however they may uſe their Pencil differing from our Pen. Though there be a way of Writing from the top to the bottom of the Page, which is very convenient for Writing the *Syriack*, as alſo for Writing *Latin*, *Engliſh*, or *Greek*, where the Writing is to be uſed for cutting the Stamps of Wood, or graving of Copper Plates with the ſame Character for Printing, in which Caſes the Letters muſt be written backwards.

Secondly, as to the Pronunciation of this Character, by the Court Language, or by any other now uſed, I conceive it to be wholly differing from that of a literal Character, that is from being pronounced or ſpoken according to the Marks or Figures thereof,

whether they be simple or compounded, and made up of simple Characters (though there are some Instances of affinity in Character and Words.) The reason of which differing pronunciation I conceive may have proceeded, partly from the loss of the primitive Language, for which it was made, partly from a most inconvenient affection of Monasyllabical Words in this Court Language, to help the Poverty of which, they are fain to make one Syllable to signifie many differing Notions, to do which they have introduced a kind of Musical toning or accenting of each of them, and not single but compound of two or three Tones to each signification of every one of these Monasyllables: Partly from the using of this way of Writing, by divers Nations of differing Languages, who minding only the Figure and Signification, read it into their own Mother Tongues, as we in *Europe* do Arithmetical Figures: And partly, also from the omission of most Grammatical Distinctions, the same Character serving for Substantive and Adjective, Singular and Plural, in all Cases, (save only they have some Characters for Particles, as *of* and *to* in English) for the Verb in all Tenses, and Numbers, *&c.* for the abstract and the concrete Signification, and for divers Metaphorical; if at least the Interpretation I have met with in the Books I have perused be exact: Partly, also from the *Syntaxis* of them, it being necessary to consider the whole Sentence, to discover which part of Speech each Character is of, in that Sentence, wherein the Order and Positions of the Characters to one another, for which they have Rules,

hath

hath its signification: And lastly, from the loss of the very Notion of a literal Character, whence for the expressing of proper Names, they are fain to make use of several Characters, whose Sounds or Words come nearest to the Sounds of the Syllables of that Name, as in the Plate *tam. jo, van*, for *Adam. Jovan.*

Now, though I conceive this Character is not effable properly as a literal Character by any of their present Languages: And though possibly it might be at first a real Character, that is each of them compounded of such Strokes or Marks as by their Figures, Positions and Numbers in the square, denoted the several Philosophical Ingredients, that made up the Notion of the whole Character, as the Book *Ye-Kim* seems to shew by giving Rules as I conceive for the Order and Significancy of places in the Square, *&c.* Yet I think it not difficult to make it a Literal, or at least a Syllabical Character, and legible into a Language somewhat after the manner of the Universal Character I mentioned before. And tho' this would not be the primitive Language for which it was made, yet for the present uses of it (the chiefest of which is the assisting and refreshing the Memory, and helping the Imagination by proper Sounds) it might be as good: Wherein the single Characters might be Monasyllables and the compounded Dissylables, Trissyllables, *&c.* According to the Numbers and Order of simple Characters in the square of the Compounded. And I am apt to think that the present pronunciation of Languages, as of *Hebrew, Syriack, Arabick, Greek* and *Latin*, or any other

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Language that has been so long Written, may be as much differing from what it was 2000 Years since, as an Arbitrary one now invented, and grounded on the Letters, might possibly be. And such an arbitrary Pronunciation if generally agreed upon might serve *as well* for a help to learn the signification of Words, or *Word Combinations* of Characters, as if we now knew the exact primitive Pronunciations, as critically as the *Masorethæ* are said to have done that of the *Hebrew*; and possibly also a *much better*, for that by such a one a great many irregularities and difficulties of Pronunciation (which are to be found in all Languages now spoken) might be omitted, and the whole made exactly regular and easie, as might be shewn in the *Hebrew* and *Greek*, and especially in the *Arabick*, whose difficulties are sufficiently manifested by *Alphabetum Arabicum*, Printed at *Rome* 1592. Now as by such a Language the Character might be made effable without Musical Tones or difficult Aspirations, so had we Dictionaries of the signification of the Characters, we might as soon learn the *Chinese* Characters, as we can *Latin*, or any other Language to be learn'd by Book, and not by speaking.

IMPRIMATUR,

John Hoskyns Vice P. R. S.
July 17*th*. 1686.

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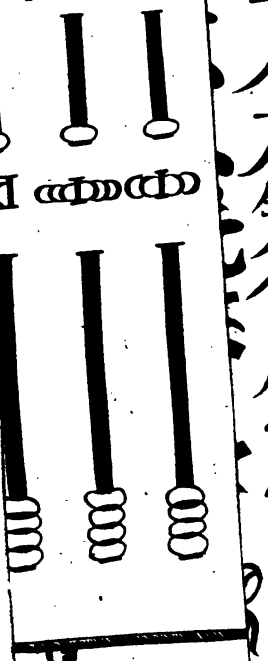
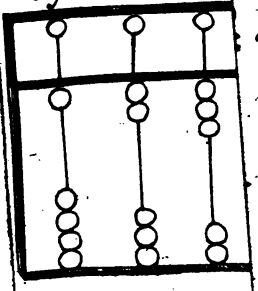
Roman Abacus out of



The Chinese Abacus from degrais



年五人大先仁几之湯若望天原又

nien ŭ gin ta sien gin pŏ chi tam jo vam tien yuen yeu

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A Letter from F. A. *Eſq; R. S. S. to the Publiſher, with a Paper of Mr.* S. Flowers, *containing the Exact Draughts of ſeveral unknown Characters, taken from the Ruins at* Perſepolis.

SIR,

I Here ſend you ſome Fragments of Papers put into my Hands by a very good Friend, relating to antique and obſcure Inſcriptions, which were retrieved after the Death of Mr. *Flower*, Agent in *Perſia* for our *Eaſt-India* Company; who, while he was a Merchant at *Aleppo*, had taken up a Reſolution to procure ſome Draught or Repreſentation of the admired Ruins at *Chilmenar*, purſuant to the third Enquiry for *Perſia*, mention'd in the *Philoſophical Tranſactions*, pag. 420. *viz. Whether there being already good Deſcriptions in Words of the Excellent Pictures and* Baſſe Relieves *that are about* Perſepolis *at* Chilmenar, *yet none very particular, ſome may not be found ſufficiently Skilled in thoſe parts, that might be engaged to make a Draught of the Place, and the Stories there Pictur'd and Carved.* This Deſire of the Royal Society,

ciety, as I believe, it hinted at a Summary Delineation, which might be perform'd by a Man qualifi'd in a few Days, taking his own opportunity for the avoiding much Expence, (which you know they are never able to bear:) So I cannot but think Mr. *Flower* conceived it to be a Business much easier to perform than he found it upon the Place, where he Spent a great deal of Time and Mony, and dying Suddainly after, left his Draughts and Papers dispersed in several Hands, one part whereof you have here, the rest its hoped may in some Time be recovered, if Sir *John Chardin*'s exact and accurate Publication of the entire Work do not put a period to all further Curiosity, which I heartily wish.

An Exact Draught or Copy of the several Characters engraven in Marble at the Mountain of Nocturestand *and* Chahelminar *in* Persia, *as they were taken in* November 1667. *By Mr.* S. Blower.

*N*1. *N*2. These two Characters are engraven on the Breast of two Horses cut out of the Mountain of Black Marble at *Nocturestand*, distant a League from *Chahelminare*, or the Ancient *Persepolis*, one whereof is said to be *Alexander*'s, the other *Rustan*'s, (a Famous Hero supposed to have lived about the time of *Cambises*.) Mr. *F.*

*N*1. This Character hath some Similitude with the Ancient Hebrew, but the *Persians* would have it their own, tho' they understand not a Letter. Mr. *F.*

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N 2. In these Lines the places are prickt where the Letters were defaced and not Perceptible. Mr. *F.*

N 4. These two Lines were writ entire on *Rustram's* Horse. Mr. *F.*

N 3. This is the (*Arabick*) *Persian* Character engraven at *Persepolis* not above 500. years since, and is little different from the Writing us'd at this day. Mr. *F.*

N 5. This Character, whether it be the Ancient Writing of the *Gaures* or *Gabrees*, or a kind of *Telesmes*, is found only at *Persepolis*, being a part of what is there engraven in white Marble, and is by no Man in *Persia* legible or understood at this Day,

A Learned Jesuit Father, who deceased Three Years since, affirmed this Character to be known and used in *Ægypt*. Mr. *F.*

It seems written from the Left Hand to the Right, and to consist of Pyramids, diversly posited, but not joined together. As to the Quantity of the Inscriptions, *Herbert* reckon'd in one large Table Twenty Lines of a Prodigious Breadth. Of this sort here are distinct Papers each of several Lines.

N 6. This Character is likewise Engraved at *Persepolis*, of the like Antiqity with the former. It has some Affinity with the *Syriack* and *Arabick*, and has been pretended to be understood by some of the *Padrees*. Mr. *F.*

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A Letter from Monſieur N. Witſen *to Dr.* Martin Liſter, *with two Draughts of the Famous* Perſepolis.

THis Ingenious and Inquiſitive Gentleman having already often obliged the World with Communications of his Diſcoveries, lately ſent the following Letter with the Draughts to Dr. *Liſter*, who was pleaſed to permit their Publication in theſe Tracts: The greatneſs of the Curioſity we hope will recommend them to the Lovers of Antiquity, little of thoſe famous Remains having been yet publiſh'd, and thoſe that have been, but ill deſigned or graved. Monſieur *Witſen*'s Letter, tranſlated from the *French*, is as follows.

SIR,

SInce I had the Honour of receiving your laſt, there came to my Hands ſeveral curious *Shells* from you, with a piece of *Engliſh Agate*, and the Tranſactions of the Royal Society for the Month of *June* laſt, for which Favours I return my humble Thanks. As to the Cockles of the *Caſpian* Sea, and from the Mouth of *Wolga*, I have advice from *Moſcou*, that they are expected there this Winter: Mean while I herewith ſend you ſome *Snail-Shells*,

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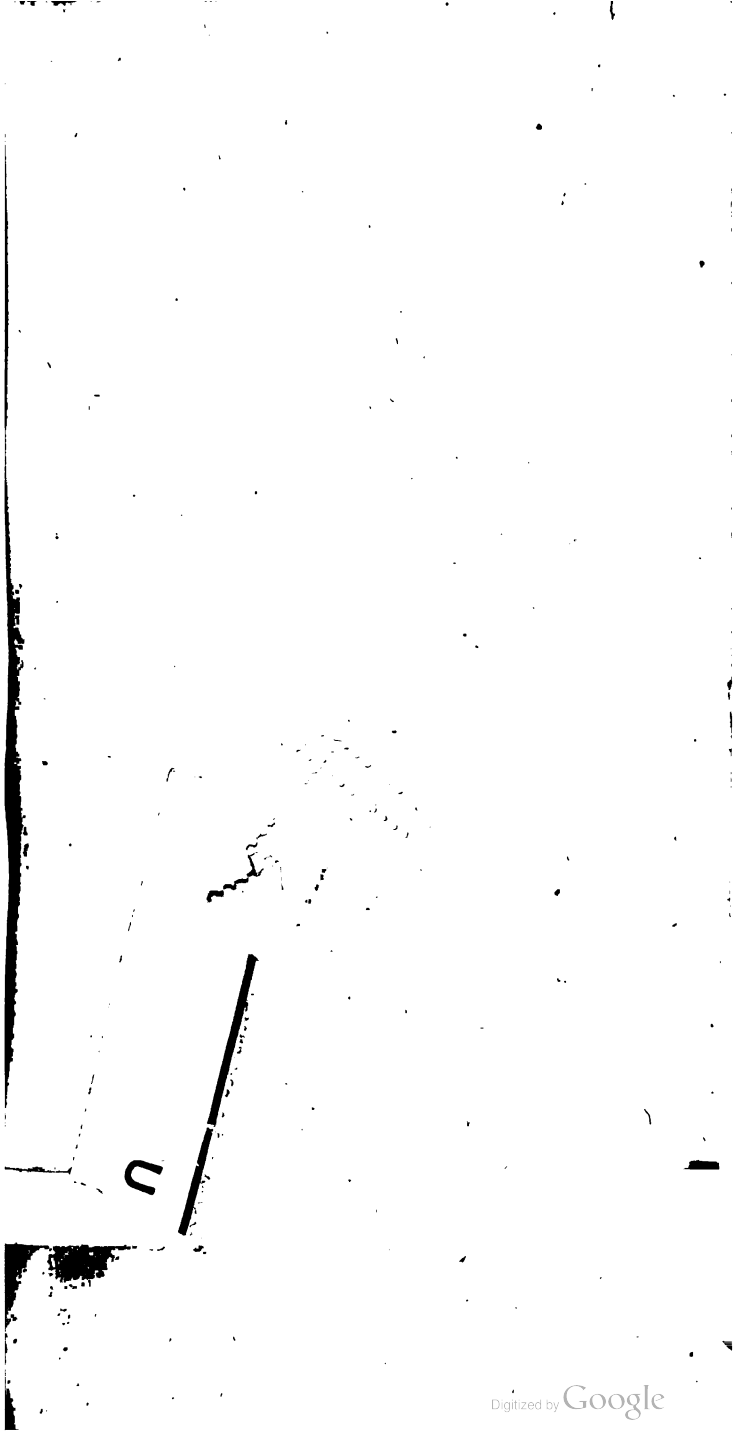

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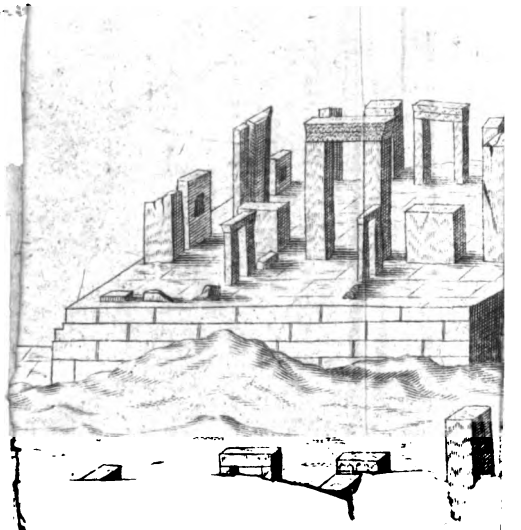

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bells, taken out of the River *Jaute*, not far om the City of *Moscou*. Our Apothecaries ake use of them powdered, and probably r the same purpose as *Crabs-Eyes*. There e some others likewise which are found in e Rivers of *Moscou* and *Neglina*, and in the *Volga*. Since you have been pleased to communicate to me an Inscription found at *Persepolis*, I thought it would be acceptable to nd you the Draughts of part of the Ruins f the Stone-work of that proud Palace, gien me by the Person himself that drew them on the place. I should be much satisfied, d I any thing worthy of your Curiosity and e Publick, which you so often oblige with our Discoveries, which justly merit mine nd the Thanks of all that esteem them as uch as my self, who am the Cherisher of your friendship, and desirous to shew that I am,

SIR,

Your most Humble and Obedient Servant,

Amsterdam,
an. 1. 1694.

N. Witsen.

A

A Description of the Diamo mines, as it was presented by Right Honourable the E Marshal of England, *to the* Society.

THE parts of the World known to c tain *Diamonds*, are the Island *Bor* and the Continent of *India extra & intra G gem: Pegu* is likewise reported to have sev al; but the King not potent, his Coun being but thinly inhabited, contents himself with his Mines of *Rubies*, *Saphires*, *Topaz Emeralds*, *Gold*, *Silver*, *Brass*, *Tinn* and *Le* and several other Commodities his Count affords, in great plenty, rather than to suff new enquiries to be made, lest the Discove of such an additional Treasure should invi some of his Neighbours, more potent to i vade him. But leaving the description other Places to those that know them bette I shall only keep my self to the Coast of *C romandel*, with which I am acquainted, an having visited several of its Mines, am abl to say something thereof Experimentally.

The Diamond-Mines in these parts ar generally adjacent to Rocky-hills, or Moun tains, whereof begins a great Ledge or Rang near *Cape Comorin*, extending in Breadt about 50 *English* Miles, some conjoyning, others

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others ſcatter'd: and running thence in length quite through *Bengula*. In, among, and near theſe Hills, in ſeveral places, are known to be (as its believed moſt of them have) Mines; many of them are poſſeſſed by petty Princes, or *Rajaes*, of the *Hundues*; ſome driven thither for ſhelter by the *Mores*, who have taken the greateſt part of their Country from them; others never overcome, as the *Rajaes*, on the Hills in and near *Bengala*, who admit of little or no Commerce with their Neighbours, or paſſage through their Country, which (being Barren, in few Places affording good Water, the ways craggy and very toilſom, eſpecially to an Army) the *Moors* covet not, but let them enjoy it peaceably; yet to prevent danger, they forbid digging (as the King of *Pegu* does) or dig ſome few Mines only very privately, ſo that a great part of the Mines are unſearcht and concealed. But the Kingdoms of *Golconda* and *Viſiapore* contain in them ſcope enough of ground, known to have Mines ſufficient to furniſh all the World plentifully with Diamonds; but their Kings permit digging only in ſome Places appointed, leſt, as it is imagined, they ſhould become too common; and withal for fear of tempting the threatning greatneſs of *Aurenge Zebe*; forbiding alſo thoſe Places that afford the largeſt Stones, or elſe keeping workmen in them for their own private uſes: So that but a very ſmall quantity in Compariſon of what might be) and thoſe only of ordinary Size, are found.

In the Kingdom of *Golconda* (as near as I can gather from the beſt acquainted) are 23 Mines

Mines now employed, or that have been ſo lately, viz. *Quolure*, *Codawillicul*, *Malabar*, *Buttephalem*, *Ramiah*, *Gurem*, *Muttampellee*, *Currure*, *Ganjeeconeta*, *Luttawaar*, *Jonagerree*, *Pirai*, *Dugulle*, *Purwillee*, *Anuntapelle*, *Girrogeta*, *Maarmood*, *Wazzergerre*, *Munnemurg*, *Langumboot*, *Whootoor*, *Muddemurg*, and *Melwillee* or the New Mine.

Quoloure was the firſt Mine made uſe of in this Kingdom. The Earth is ſomething Yellowiſh, not unlike the Colour of our Gravel dried; but whiter in ſome Places where it abounds with ſmooth Pebbles, much like ſome of thoſe that come out of our Gravel-pits in *England*. They uſe to find great quantities in the Vein, if it may properly be ſo called, the Diamonds not lying in continued Cluſters as ſome imagine, but frequently ſo very ſcattering that ſometimes in the ſpace of $\frac{1}{4}$ of an Acre of Ground, digged between two or three fathoms Deep, there hath been nothing found; eſpecially in the Mines that afford great Stones, lying near the ſuperficies of the Earth, and about three Fathoms deep; deeper they could not dig for Water; it being in a Vale near a River. In other places the Earth is mixt with rugged Stones, where they ſeldom mine deeper, though in higher ground, before the Colour of the Earth alters, and the Vein ceaſes; which they give a gueſs at by the ſmall Stones they find in the Earth, the principal Guide they have in the diſcovery of the Mines.

The Diamonds found in theſe Mines are generally well-ſhaped, many of them point-

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ed, and of a good lively white Water; but it also produces some *Yellow* ones, some *Brown*, and of other colours. They are of ordinary sizes, from about six in a *Mangelin** (of which they find but few) to five or six *Mangelins*, each; some of 10, 15, 20. they find but rarely. They have frequently a bright and transparent skin, inclining to a greenish Colour, though the heart of the Stone be purely white; but the Veins of these Mines are almost worn out.

* *A* Mangelin *is* 4 *grains in weight, saith* Linschoten.

The Mines of *Codæwillicul*, *Malabar*, and *Buttepallam* consist of a reddish Earth, inclining to an Orange-colour (with which it stains the Cloaths of the Labourers that work in it) they dig about four Fathom deep. They afford Stones generally of an excellent Water and crystaline Skin; smaller sizes than those of *Quolourr*, *Ramiah*, *Gurem*, and *Muttampelleo*; have a Yellowish Earth, like *Quoture*; their Stones like those of the two former Mines, but mixt with many of a blue Water. These five Mines being under the same Government with *Melwillee*, where the Governour resides; He to draw the Adventurers and Merchants near him, that he may be better informed of the Actions and Advantages, and know the better how to Fleece them, the general practice of Governours in these parts, has very lately forbid their use; and commanded all to repair to his Residence, which they must obey, or fly into another Government.

The next Mine in our way is *Currure*, the most famous of them all and most Ancient.

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It has been under Subjection of the King *Golconda*; but about 25 Years, taken, wi the Country of *Karnaticum*, from the *Hendu Rajaes*, about that time, by the *Nabob*, *Mee Jumla*. In it have been found Diamonds a *size* weight, which is about 9 Ounces *Tr* or 81 ½ *Pago's* weight. It is only employe by the King for his own private use: Th Diamonds that are found in it, are very we spread, large Stones (it yields few or non small,) they have generally a bright Ski which inclines to a pale Greenish colour, bu within are purely white. The Soil is Red dish as many of the others.

About sixty or seventy years ago, when i was under the Government of the *Hundue* and several Persons permitted to adventur in digging, a *Portugeez* Gentleman went thi ther from *Goa*, and having spent in Mining a great sum of Mony to the amounts of 10000 *Pago's*, as 'tis reported, and converted ever thing he brought with him, that would fetch any mony, even to what wearing Cloaths he could spare, while the Miners were at Work for the last Days expence, he had prepared a cup of Poyson, resolving, if that Night he found nothing, to drink his last with the con-clusion of his Mony; but in the Evening the Workmen brought him a very fair spread Stone of 20 *Pago's* weight, in commemoration whereof he caused a great Stone to be erect-ed in the place, with an Inscription ingraven on it, in the *Hundues* or *Tellinga* Tongue, to the following effect, which remains to be seen to this day;

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Your Wife and Children sell, sell what you have,
Spare not your Cloaths, nay, make your self a Slave;
But money get, then to CURRURE *make haste;*
There search the Mines, a Prize you'l find at last.

After which he immediately returned with his Stone to *Goa*.

Not far from *Currure* are the Mines of *Lattawaar* and *Ganjeconta*, which are in the same Soil as *Currure*, and afford Stones not unlike: But *Lattawaar* hath many representing the great end of a Razor-blade, thin on one side and thick on the other, very white and of an excellent Water; but the best of the Mine is worn out, and *Ganjeconta* employed only to the Kings private use.

Jenagerre, *Pirai Dugulle*, *Purwillee* and *Anuntapellee*, consist also of Red earth, are now employed, and afford many large Stones; part of them of a greenish Water; but the most absolute Mines are of *Wazzergerre* and *Munnemurg*, (the other rather representing Pits than Mines;) for there they sink through high Rocks till they go so far below their basis, that they can go no further for Water, in some places 40 or 50 Fathom deep. The superficies of the Rocks consist of hard, firm, white Stone, into which they cut a Pit like a Well, of about 4 or 5, in some places 6 Foot deep, before they come to a crust of a Mineral Stone, like the Mineral of Iron; when they fill the Hole with Wood and keep as hot a Fire as they can there for two or

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three Days, till they think it ſufficiently heated; then they pour-in Water till they have quencht it, which alſo ſlacks and molifies both Stone and Mineral; both being cold, they dig again, take out all the crumbled ſtuff and dig up what they can beſides, before they heat it anew; the Cruſt ſeldom is thicker than three or four Foot, which ceaſing, they come to a Vein of Earth, that uſually runs under the Rock two or three Furlongs; ſometimes much further: This they dig all out and ſearch, and if their firſt attempt prove ſucceſsful, they go to Work again (digging after the ſame manner) as deep as they can, till they come to Water; for the drawing whereof, wanting the help of Engins, known in *Europe*, they can go no deeper, although the Vein lie lower; all lumps of the Mineral they break in pieces, and frequently find Diamonds encloſed in them. To Work on theſe Mines is very expenſive, but the advantage is commonly anſwerable; yet in reſpect of the certain disburſe, that muſt be before any thing be found, they are not ſo much frequented as others, where they may try their Fortunes with a ſmaller Stock. The Earth they dig out is Red: Many large Stones are found here; the ſmalleſt about 6 in a *Mangelleen*. They are mixt Waters, but the greateſt part good, only of ill-favoured ſhapes, many cragged pieces of Stones, ſome as if they had been parts of very great ones, others with pieces broken off them; yet I never heard of any that ever found two ſeeming fellows, although they do thoſe that look as if they had been newly Broken.

In

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In *Langumboot* they dig as they do at *Wazzergerree* and *Munnemurg*; the Rock is not altogether ſo ſolid, but the Earth and Stones it produces much alike.

Wootoor ſhould have been placed next to *Currure*, it lying near it, and affording Stones of a like magnitude, ſhapes and waters; 'tis employed only to the Kings uſe: And ſingular, in that its Diamonds are found in black Earth.

Muddemurg far exceeds all the reſt for Diamonds of a delicate Shape, Water, and bright tranſparent Skin, Proud, as it were, in diſcovering their inward Beauties, with which no other Mine can compare; yet it has alſo ſtore of Veiny ones, but thoſe likewiſe of ſo curious Shape and Water, that its difficult to diſcover them from the good, eſpecially the ſmall ones. It produces Stones of divers Magnitudes, from ten and twelve in a *Mangelleen*, to ſix or ſeven *Magelleens* each, and beſides, ſome great ones. The Earth is Red, but its ſeated in the Woods, and the Water ſo bad, that to all (except the People Bred there) it preſently occaſions Fevers and deſtroys abundance, inſomuch that moſt of the Adventurers have forſaken it; notwithſtanding which it hath been more profitable than any of the reſt, the Vein frequently lying near the ſuperficies of the Earth, ſeldom running deep, and is better furniſht than any other yet diſcover'd. The River *Kiſhna*, of excellent waters, is but 9 Miles diſtant; but the Miners or Merchants are either poor that they cannot, or elſe over-awed by the Governour, pretend to be and dare not

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be at the charges of fetching their Water from thence. Divers are of the opinion, that, beſides the Water, the Town lying in a bottom, enviorn'd with Hills and Moraſs adjoyning, the Air may be infected, and contribute to its unhealthfulneſs.

Melwillee or the *New Mine*, ſo called, becauſe it was but lately found out (or at leaſt permitted to be made uſe of) in the Year 1670. it had then a Year employed the Miners; but it was forbidden, and lay unoccupied till 1673, when complaint being made at *Quoleur*, that the Vein was worn out, the King again licenſed its ſettlement. The Earth they Mine in, is very red, and many of the Stones found there, have of it ſticking to them, as if it had clung there while they were of a ſoft glutinous Subſtance, and had not attained their hardneſs, maintaining its Colour on its Skin (ſeeming to be roughned with it) that it cannot be fetch'd out by grinding on a rough Stone with Sand, which they make uſe of to clean them. The Stones are generally well-ſhaped, their ſize from 5 or 6 in a *mengelleen* to thoſe of 14 or 15 each, and ſome bigger; but greateſt quantities of the middle ſorts: Moſt of them have a thick dull Skin, incline to a yellowiſh Water, not altogether ſo ſtrong and lively as of the other Mines; very few of them of a cryſtalin Water and Skin. They are reported to be apt to flaw in ſplitting, which occaſions theſe People to eſteem them ſomething ſofter than the Product of many of the other Mines: Several that flatter by their ſeeming whiteneſs when rough, diſcover their deceitfulneſs ha-

having past the Mill, and too often a yellowish Tincture, to the disappointment and loss of them that have cut them; but what they want in goodness, is in part supplied by the plenty they find, which, together with their properties, make them the cheaper. This being what I have gathered, both by Experience of several of the places I have seen, and the best Informations I could meet with, of the Mines in this Kingdom; I shall now proceed to those in *Visiapore*.

Visiapore is known to contain Mines enclosing Stones as large and good as those of *Golconda*; but the King, for Reasons already given, makes use but of the meanest: Whereby, as *Golconda* is famous for the largeness of those it affords, *Visiapore* is noted for the smallest; whose Mines, though they seldom or never render an Adventurer a Fortune or Estate at once, as sometimes those of *Golconda* do, by a great Stone or several found together; yet they are more Populous and better employed, the small Stones lying thicker in the Earth, so that the generality are gainers, and few but they get their Expence; whereas those of *Golconda* dig away a considerable Estate and find nothing, others not their Charges, and where one is a gainer, divers lose.

There are 15 Mines employed in the Kingdom of *Visiapore*, viz. *Ramulconeta*, *Banigunnapellee*, *Pendekull*, *Moodawarum*, *Cumerwillee*, *Raulkull*, *Workull*, *Lungeepoleur*, *Pootloor*, *Punchelingull*, *Shingarrampent*, *Tondarpaar*, *Gundepellee*, *Donee* and *Gazerpellee*.

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In *Ramulconeta* Mines in red Earth, about 15 or 16 Foot deep, they ſeldom find a Diamond of a *mangelleen* weight, but ſmall to 20 or 30 in a *mangelleen.* They are generally of an excellent Cryſtalline Water, have a bright clear Skin, inclining frequently to a pale greeniſh Colour, are well ſhaped, but few of them, pointed ones. There are alſo found among them ſeveral broken pieces of Diamonds, by the Country People called *Shemboes.*

In *Banugunnapellee*, *Pendekull*, and *Moodawarum*, they dig as at *Ramulconeta*, and in the ſame kind of Earth; they alſo afford Stones much alike, being neighbouring Places.

Cummerwillee, *Paulkull*, and *Workull*, are not far diſtant, produce Stones much alike out of the ſame coloured Earth, but very ſmall ones even to a hundred in a *mangelleen.*

Lungepoleur Mines are of a yellowiſh Earth (like thoſe of *Quoleur*,) its Diamonds are generally well ſhaped, globular, few pointed, of a very good Cryſtalline Water and bright Skins; many of them have a thick dark Graſs-green Skin, ſome ſpotted alſo with Black, that they ſeem all foul, yet are not ſo, but within purely white and clean. Their ſizes are from 2 or 3 *mangelleens* downwards, but few very ſmall.

Pootloor Mines are of reddiſh Earth, but afford Stones much like thoſe of *Lungepoleur*, only ſmaller, under a *mangelleen*; the general ſizes are of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{6}$ of a *mangelleen.*

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Punchelingull, *Shingarrampent*, and *Tondarpaar*, are also of red Earth, their Diamonds not unlike those of *Quoleur*, only rarely or never any large ones are found there.

Gundepellee hath the same Earth with the former, and produces Stones of equal Magnitude; but frequently of a pure Crystalline Water, wherein they exceed the former.

Donee and *Gazerpellee* dig both in red Earth likewise, and afford Stones alike, the greatest part whereof are of good Shapes and Waters. They have also many *Shemboes*, and some of bad Waters, some brown, which these People call soft or weak water'd, being esteemed of a softer and weaker Body than others, by reason they have not so much Life, when cut, and are subject to flaw in splitting, and on the Mill; their general Product is in Stones of middle Sizes: But *Gazerpellee* has besides many large ones, and is the only Mine noted for such in the Kingdom of *Visiapore*. With which concluding the description of the Mines, I shall give some Account how the Diamonds are found, and how they handle the Earth to find them; which is as followeth.

The Diamonds are so scatter'd and dispersed in the Earth, and lie so thin, that in the most plentiful Mines it's rare to find one in digging, or till they have prepar'd the Stuff, and do search purposely for them: They are also frequently enclos'd in Clods; and some of those of *Melwillee*, the New Mine in the Kingdom of *Golconda*, have the Earth

Earth so fix'd about them, that till they grind them on a rough Stone with Sand, they cannot move it sufficiently, to discover they are Transparent; or, were it not for their Shapes, to know them from other Stones. At the first opening of the Mine, the unskilful Labourers, sometimes to try what they have found, lay them on a great Stone, and striking on them with another, to their costly experience discover they had broken a Diamond. One I knew who had an excellent Stone of 8 *mangelleens*, served so by ignorant Miners he employed.

Near the Place where they dig, they raise a Wall with such rugged Stones as they find at Hand (whereof all the Mines afford Plenty) of about two Foot high, and six Foot over, flooring it well with the same; for the laying of which they have no other Mortar than the Earth tempered with Water. To strengthen and make it tight they throw up a Bank against the side of it: In one whereof they leave a small vent about two Inches from the bottom, by which it empties it self into a little Pit, made in the Earth to receive small Stones, if by chance any should run through. The vent being stopped, they fill the Cistern they have made with Water, soaking therein as much as the Earth they dig out of the Mines, as it can conveniently receive at a time, breaking the Clods, picking out the great Stones and stirring it with Shovels, till the Water is all Muddy, the gravelly stuff falling to the bottom; then they open the vent, letting out the foul Water and supplying it

it with clean, till all the Earthly Substance be wasted away, and none but a gravelly remains at the bottom. Thus they continue Washing till about Ten of the Clock before Noon, when they take the gravelly Stuff they have washed, and spread it on a Place made plain and smooth (like a Bowling-Alley) for the purpose, near the Cistern, which being soon dried by the heat of the Sun at that time of the Day, they very curiously look it over, that the smallest bit of a Stone can hardly escape them. They never examin the Stuff they have wash'd but between the Hours of Ten and Three, least any Cloud by interposing, intercept the brisk Beams of the Sun, which they hold very necessary to assist them in their search; the Diamonds, not forbearing to reflect them when they touch therein, rendring themselves thereby the more conspicuous.

Some of the experteſt Labourers are employed in searching; he that sets them at Work usually sitting by, and overlooking; but it's hardly possible, especially where many are employed, to watch them so narrowly, but that they may steal part of what they find, as many times some of them do, and, selling it privately, convert to their own use. If they find a large Stone, they carry it not presently to their Employer, but keep on looking, having an Eye on him till they observe he takes notice of it, when with a turn of their Hand they give him a glimpse of it, but deliver it not till they

they have done Work, and then very privately, it being the general Endeavour to conceal what they find, leaſt it ſhould come to the Knowledge of the Governour of the Place, and he require a ſhare, which in the Kingdom of *Golconda* is uſually practiced, without reſpect to any agreement made with them.

The Miners, thoſe that employ them, and the Merchants that buy the Stones of them, are generally *Ethnicks*; not a *Muſſelman*, that ever I heard of, followed the Employment. Theſe Labourers and their Employers are *Tellinga*'s, commonly Natives of or near the Place. The Merchants are the *Banians* of *Guzzarat*, who for ſome Generations have forſaken their own Country to take up the Trade, in which they have had ſuch Succeſs, that 'tis now ſolely engroſs'd by them; who correſponding with their Country-men in *Surrat*, *Goa*, *Golconda*, *Viſiapore*, *Agra* and *Dillee*, and other Places in *India*, furniſh them all with Diamonds.

The Governors of the Mines are alſo Idolaters: In the King of *Golconda*'s Dominions a *Tellinga Brammee* Rents moſt of them, whoſe agreement with the Adventurer is, that all the Stones they find under a * *Pagoda* Weight, are to be their own; all of that Weight and above it to be his, for the King's Uſe: But although this Agreement be ſigned and ſealed unto, he minds not at all the Performance thereof, but endeavours to

* *A Pagoda weighs* 9 Mangelleens.

to engross all the Profit to himself, by Tyrannical squeezing both Merchants and Miners, whom he not only Taxes very high, but maintaining Spies among them of their own People, on the least Inkling that they have been any ways Fortunate, he immediately makes a Demand on them, and raises their Tax; else, on a false Pretence they have found a great Stone, drubs them till they Surrender what they have, to redeem their Bodies from Torment. Besides, the Excise is so high on all sorts of Provisions, *Beetle*, and *Tobacco*, which to them is as absolutely necessary as Meat, or at least in their Esteem, that it is thereby raised to double that Price they bear without the Government; and it is furnish'd only by some Licens'd Persons; if any other should endeavour to bring in the least quantity by stealth, he is Fin'd (even for one Leaf of *Tobacco*) if it be a Person of any Repute, or worth any thing, else very severely drubb'd for it; by which Course there is hardly a Man worth five Hundred Pound to be found among them, most of them dealing by Monies taken up at Interest of Usurers, who reside there purposely to furnish them, who, with the Governor eat up their Gains: So that one would wonder any of them should stay, and not betake themselves to Places where they might have better Usage; as there are several in other Governments, and some few that have the Sense to remove; but many their Debts, others hopes of a great hit, detains. Both Merchant

chant and Miner go generally naked, only a poor Clout about their middle, and their Shaſh on their Heads; they dare not wear a Coat, leſt the Governor ſhould ſay they have thriven much, are Rich, and ſo inlarge his Demands on them. The Wiſeſt, when they find a great Stone, conceal it till they have an opportunity, and then with Wife and Children run all away into the *Viſiapore* Country, where they are ſecure.

The Government in the *Viſiapore* Country is better, their Agreement obſerv'd, Taxes eaſier, and no ſuch Impoſitions on Proviſions; the Merchants go handſomly Clad, among whom are ſeveral Perſons of conſiderable Eſtates, which they are permitted to enjoy peaceably, by reaſon whereof their Mines are much more Populous and better employed than thoſe of *Golconda*.

It is obſervable, that notwithſtanding the Agreement with the Adventurers of the Mines, that all Stones above a certain Weight ſhall be for the King's Uſe; yet in the Metropolis of either Kingdoms, as the Cities of *Golconda* and *Viſiapore* are, there is no ſeizure, all Stones are free, and the late deceaſed King, *Abdull Cutopſhaw* of the former, and *Edelſhaw* of the latter, would not only give very great Prices for large Stones, but richly Veſt, and preſent the Merchant that Sold them with Horſes or ſomething elſe of Value, thereby encouraging others to bring the like. But the preſent King of *Viſiapore*

is

is a Child, and the King of *Golconda's* Delights solely pleased on light Women-Dancers, and Trick-Shewers, that he neither minds *Diamonds*, nor many things more necessary, committing the Government of his Kingdom to a *Tellinga Brasminee*, which the *Musselmen* not well resenting, does in some measure threaten the stability of his State.

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A Letter from the East Indies, *of Mr.* John Marshal *to Dr.* Coga, *giving an Account of the Religion, Rites, Notions, Customs, Manners of the Heathen Priests commonly called* Bramines. *Communicated by the Reverend Mr.* Abraham de la Pryme.

Worthy Sir,

THE last time that I had the happiness to be in your good Company, and to partake of those Favours and Blessings that your Goodness was pleased liberally to bestow upon me and our Companions, at our departure, and as it were Exile from our Native Land, does so loudly call out for some recompence or other at our Hands, that I cannot without the greatest Ingratitude imaginable, let slip this (tho' sudden) opportunity of Writing unto you, and presenting of you at this time with what I understand you more value than all the Riches of the East; to wit, a few Specimens of the Knowledge of those People whom we stile Barbarians, Heathens and Idolaters, which I have read in their

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their own Books, and gather'd from the mouths of thoſe that have been the greateſt Speakers and Preachers among them. I have always had a profound Veneration for the Dictates of Nature, and the univerſal Traditions of Nations, for hereby are Infinite Things to be learned, for the eſtabliſhing of our Glorious Religion againſt Atheiſts, and the more eaſie propagation of the ſame among Infidels and Heathens.

Upon what account or grounds it is that ſome Travellers have ſtiled theſe People Polytheiſts, or Atheiſts, I cannot tell; or whether there be any ſuch People at all in the World, except ſome of the baſe common ſort in all Nations, I much queſtion? It is very obſervable here, that their Prieſts, or *Bramines*, and Holy Men, whom they call *Jagees*, when they have occaſion to Write any thing they always put a figure of one in the firſt place, to ſhew, as they ſay, that they acknowledge but one God, whom they ſay is *Burme*, that is, Immaterial. When they preach to the People, and Inſtruct them, which is commonly every Feaſt-day, full Moon, or the time of an Eclipſe of either Luminary, they tell the common People much of God, Heaven and Hell, but very Imperfectly, Obſcurely and Myſtically. They ſay that when God thought of making the World, he made it in a minute.

They account this World the Body of God, for all that they ſay he's Immaterial; and ſay that the Higheſt Heavens are his Head, the Fire his Mouth, the Air his Breath and Breaſt, the Water his Seed, and the

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Earth and the foundations thereof his Legs and Feet. But assert in general that God is the Life of every thing, yet is the thing neither greater nor less for him.

They hold that God dwelt in a Vacuity before that he created the World, and that as he dwelt in that Vacuity he created several Beings out of himself, the first were Angels, the second Souls, the third Spirits, all differing in degrees of Purity, the first being more pure than the second, and the second than the third. The Angels, they say, neither act Good nor Evil, the Souls either Good or Evil, but the Spirits, or *Demia's*, as they call them, act scarce any thing but Evil.

They have a good Opinion of the Angels, and think their State mighty happy, hoping that when they dye they shall be be made partakers of the same Bliss and Pleasure.

They believe that every thing that hath Life hath a Soul, but especially Man; and they accordingly affirm, that as these Souls behaved themselves in their pre-existent State, so are their Actions in this World either good or bad, by a sort of fatal Necessity, which is very hard to conquer, or to overcome. Hence it is, say they, that there are so many different Humours and Dispositions of Men, for their Souls, before their entrance into their Bodies, being tainted with different Affections, causes the like differences in the Parties, whose Bodies are their Vehicles. So that if a Man happen to have a suddain or unfortunate Death,

they

they immediately ascribe the same to the Party's own Wickedness, or the bad Life that his Soul led before that it enter'd into his Body. For, say they, the afore-acted Evil that his Soul did in its other Life, brought these accidents upon him, by getting the upper hand of him, and by being too powerful and strong. And those that dye thus, they believe that their Souls turn immediately into Devils. They mantain *Pythagoras*'s Transmigration, or *Metempsycosis*, but in a grosser sense than he did. For they believe that Mens Souls, that have not lived so well as they ought, go as soon as the Body dyes not only into Birds and Beasts, but even into the basest Reptiles, Insects and Plants, where they suffer a strong sort of purgation, to expiate their former Crimes: But as for the Souls of the *Jogees*, or *Fuchs*, that is, of Religious Men and Saints, they fancy that they go and inhabit with the good *Deuta*'s, or Angels, among the Stars.

As for the Spirits, or Inferiour Angels, they believe that they are very evil, and have a hand in all Wickednesses, Murders, Wars, Storms, and Tempests; so that when they solemnize the Funerals of those that are dead, they always present Dishes of Meat, as Offerings unto those Spirits, and sometimes Sacrifice unto them, that they may not hurt the Souls of the Dead.

As they acknowledge the being of a mighty God, so they hold that he created the World, and every thing therein. They believe that there are almost infinite num-

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ber of Worlds, and that God has oftentimes Annihilated and Re-Created the ſame. But how he came firſt to Create the World and Mankind, they relate to have been thus—Once on a time (ſay they) as he was ſet in Eternity, it came into his mind to make ſomething, and immediately no ſooner had he thought the ſame, but that the ſame Minute was a perfect Beautiful Woman preſent immediately before him, which he called *Adea Sukee*, that is, the firſt Woman: Then this figure put into his mind the figure of a Man; which he had no ſooner conceived in his mind, but that he alſo ſtarted up, and repreſented himſelf before him; this he called *Manapuiſe*, that is, the firſt Man; then upon a reflection of theſe things, he reſolv'd further to create ſeveral places for them to abide in, and accordingly aſſuming a ſubtil body, he Breath'd in a Minute the whole Univerſe, and every thing therein, from the leaſt to the greateſt.

They conſtantly believe that the Univerſe cannot poſſibly laſt longer than 71 *Jovg's*, which is a meaſure of time with them, and is . . . . years. Which when it is come, God does not only annihilate the whole Univerſe, but even every thing elſe, as well Angels, Souls, and Spirits, as Inferiour Creatures; and then he remains in the ſame State that he was in before the Creation; But ſay, that after he has a while reſpired thus he Breaths again, and every thing is Created afreſh, as well Angels and Souls, as all other things; but as for the Spirits,

they

they are no more thought of. Yet for all this, after 71 *Yoogs* more all is Annihilated again. How many *Yoogs* are paſt ſince the World was laſt Created they cannot certainly tell; only 'tis obſervable that in an Almanack of theirs, written in the *Sanſcript* Language in 1670, they make the World then 3892771 years old from its laſt Creation,

The *Bramines* of *Perſia* tell certain long Stories of a great Gyant that was led into a moſt delicate Garden, which upon certain conditions ſhould be his own for ever. But one evening in a cool ſhade, one of the Wicked *Dewta's*, or Spirits, came to him, and tempted him with vaſt ſums of Gold, and all the moſt precious Jewels that can be imagined; but he courageouſly withſtood that temptation, as not knowing what value or uſe they were of: But at length this wicked *Dewta* brought to him a fair Woman, who ſo charm'd him, that for her ſake he moſt willingly broke all his Conditions, and thereupon was turned out.

They tell a great many Stories Abſurd and Ridiculous enough, of the firſt Ages of this preſent World, which would be too tedious here to take notice of; only I ſhall here give you out of one of their own Books what they tell us of a great Flood that formerly happened. They ſay, that about 21000 Years ago the Sea overwhelm'd and drowned the whole Earth, except one great Hill, far to the Northwards, called *Bindd*, and that there fled thither only one Woman and ſeven Men, the names of whom

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were *Debvolah*, *Summuk*, *Summud*, *Trilleek*, *Samrotah*, *Cuppyloshaw*, *Surasch'h* and *Burroopung*; these understanding out of their Books that such a Flood would come, and was then actually coming, prepaired against the same, and repaired thither; to which place also went two of all sorts of Creatures, Herbs, Trees, and Grasses, and of every thing that had Life, to the number in all of 1800000 living Souls. This Flood (say they) lasted 120 Years, 5 Months and 5 days: After which time all those Creatures that were thus preserved, descended down again and replenished the Earth: But as for the 7 Men and Women, only one of them came down with her, and dwelt at the Foot of the Mountain, the other six turned *Fuchee's*, or Holy Men, and spent there the remainder of their days.

They hold in general the *Ptolomaic* System of the Universe, and say that there are 8 or 9 Heavens, counting the Air and Earth, every one exceeding another in Beauty and Glory.

Their Religion consists of nothing that I could ever see or learn, but the leading of a Pure Life, the Washing away of their Sins in the River *Ganges*, their muttering over of divers Prayers, and their doing of strange and incredible Penances.

They say, that God is such a one, that whosoever seeks him, let it be after what manner he pleases, whether by thinking that the Sun is he, or the Moon, or the like, if they do it but sincerely and honestly, with a right affected heart, they shall be received of him.

They

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They report, that on a time a *Mussulman* seeing a *Hindoo*, or Pagan Priest, in Heaven, he ask'd God how that Infidel came to have admittance thither, whom *Mahomet* so often calls by the name of Bitter Roots? To whom God answered, What if a Bitter Root bring forth sweeter Fruit than any of you, why should I not receive it? Upon which the *Mussulman* had no more to say.

They hold, that such as suffer not their minds to wander after the lusts of the World are perfect *Jogees*, or Saints, and hold that God is always present with them in all their actions.

It is to be found in many of their Books, that there was a time, a good while ago, in which God took upon him the shape of a Man, and spent many Years in reforming the world, and giving better rules to walk by than had been before: but at length having left them, they soon forgot him and his Rules, and returned to their former courses; upon which he told them that he would leave them to their ways, and never undertake any such thing again.

The Religious at some certain Seasons of the Year come unto the River *Ganges* (which they call the Holy River) in vast multitudes, even from many parts of *Tartary*, to wash away their sins, and make expiation for their faults.

This *Ganges* is a delicate fine River chiefly for the sake of its most sweet, pure and clear Waters, which have got it the greatest esteem of any River in the East. I have oftentimes sail'd many Miles up it, and have

found it in ſome places not to be above a Mile broad, in others not half ſo much, and in one or two places not above one eighth of a Mile. In *April*, when the Water is at the loweſt, it is almoſt dry in many places; but when it is at the higheſt, which is commonly about the middle of *September*, it is very deep, and many Miles broad.

When the People are here gather'd together, they have a great many ſtrange Cuſtoms and Ceremonies, and pay a kind of Divine Honour and Worſhip to the River, too long and tedious here to mention. The *Hindoo's* and *Bramines* preach then every day to the people, teaching them their Duties, and ordering them to ſay ſuch and ſuch Prayers; but above all things to be Charitable to the poor and needy.

It is reported, that upon the Hills by *Caſmere* there are men that live ſome hundreds of Years, and can hold their Breaths, and lye in Trances for ſeveral Years together, if they be but kept warm; and that every year ſome of them come down unto the People at *Ganges*, and do many great Cures; for whom they have ſuch a Veneration, that they frequently drink the Water they waſh their Sweaty Feet in.

The Penances and Auſterities that they undergo are almoſt incredible; moſt of them, through their continual Faſtings, and lying upon the parching hot Sand in the Heat of the Sun, are ſo Lean, Dry'd and Wither'd, that they look like Skeletons or Shadows, and one can ſcarce perceive them to breath, or feel their Pulſe beat.

When

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When any great Man dyes among them, but eſpecially any of their *Jogee*'s or Saints, they make great preparations for their Funeral; the Corpſe is laid on its Belly, and Salt and Rice laid round about it at every corner of the Ground. Then the neareſt Relations to the Party deceaſed carry a Pot of Water on their Shoulders ſeveral times about the Funeral Pile, when they burn them, then breaking it in pieces, ſpills the Water. Which Ceremony being ended, the Pile is fired, and then all the Relations begin to howl, and embrace one another, then waſhing themſelves in ſome Neighbouring River, they depart every one to his Home; and as for the remaining Aſhes, if he be Rich they gather them up, and caſt them into the *Ganges* or the Sea.

Sometimes it happens that the Wife of the deceaſed Party, if ſhe have no Children, and be old, or ill to live in the World, will burn her ſelf with the dead Body; but this happens very ſeldom. It is ſaid, that in ſuch caſes the *Bramines* give the Woman a ſtupifying Liquor, which by the time that they are in the Fire makes them ſenſeleſs of any Pain.

To know into what Body the Soul of the deceaſed is tranſmigrated they do thus; they ſtrew the Aſhes of the Dead upon the Place where he was firſt laid after his Death, and handfuls of odoriferous Flowers about the ſame, and returning again in 44 Hours, they judge by ſome pretended Impreſſion or other in the Aſhes, into what Body it is gone: If the Foot of an Horſe, or Dog, or Ox, or ſuch

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such like appear, then they certainly give out that it is gone into such like Creatures; but if nothing appear, then they think it is certainly gone to the Starry Regions.

As for their Learning and Knowledge it is but little; they have indeed several Books writ in divers Languages, but they contain nothing but a great deal of Stuff and Cant about their Worship, Rites and Ceremonies.

They are ignorant of all parts of the World but their own; they wonder much at us, that will take so much Care and Pains, and run thro' so many Dangers both by Sea and Land, only, as they say, to uphold and nourish Pride and Luxury. For, say they, every Country in the whole World is sufficiently endow'd by Nature with every thing that is necessary for the Life of Man, and that therefore it is madness to seek for, or desire, that which is needless and unnecessary.

The last time that I was at *Moduffer pore* in *Indostan*, I had a great deal of talk with a *Bramine* somewhat more Learned than any of the rest, his Name was *Ramnaunt*; he told me a great many Secrets in Physick, and told me many Traditions and Stories. He says, that if you bury a piece of Mony for some considerable time in the Mouth of a live Frog, and then dig it up again at Midnight, that this piece of Money, to whomsoever you give or pay it, will always return to you again.

He says, that if the little Worm in the Wood *Lukerakera* be cut in two, and the one part stirs and the other not, if the stirring part be bruised, and given with half a Beetle

to

to a Man, the other half to a Woman, this Charm will keep them from ever lying absent one from the other.

They have Books full of the like absurdities, and Cabalistick complication of Figures; as for Example, if you write these following Numbers, 28, 35, 2, 7.——6, 3, 32, 31—34, 29, 8, 1,—4, 5, 30, 33. in the squares of a square Figure, and your Enemies Name under it, and wear it always about you, your Enemy shall never be able to hurt you.

So if you write the following Figures in the like manner upon the left Hand, 2, 9, 2, 7—6, 3, 6, 5,—8, 3, 8, 1—4, 5, 4, 7— with Turmerick, and wash the same off with fair Water of *Ganges*, and drink it, it will cure all manner of Venomous Bitings.

Multitudes of such like ridiculous Fancies they have; all which they seem to have borrowed from the *Cabala* of the *Saracens*, which is full of such like.

I lately heard a *Bramine* say, that if some of the pieces or knots of the Cloath) in which a Woman hath been burned with her Husband) be saved, and made up in the form of a Wick, and fitted for a Lamp, and lighted, and set in a dead Womans Skull, that it would make the dead Party appear. This he said he had done, but I did not believe him.

When they have any mad Men among them, they take them and put them into a close Room, just big enough to hold them, and almost Smoke them to Death with Musk and cold Smells, which soon brings their Brains into their right temperature, and so recover them, *&c.*

There

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There happen'd two things in our Voyage hither which I thought very obſervable tho' perhaps they may not be unknown to you—. The firſt was, that all our Tornadoes brought much Rain with a ſtink; and if the Sea-men did but lay their Cloaths by for 24 Hours, they became all full of little Maggots. The ſecond is, When we came out of *Europe* we took in ſome Water at St. *Jago*'s, and when we were almoſt at our Journeys end, our Cooper going with a Candle to open one of the Casks, he had no ſooner done it, but the Water immediatly took Fire, and burnt his Face, Hands and Fingers; but he ſuddenly turning about quench'd the ſame, by ſetting his Britch on it. It ſtunk pretty much alſo at the ſame time, but afterwards came to its native Sweetneſs, *&c.*

I am yours, &c.

Jo. Marſhal.

Part

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Part of two Letters to the Publisher from Mr. James Cunningham, *F.R.S. and Physician to the* English *at* Chusan *in* China, *giving an account of his Voyage thither, of the Island of* Chusan, *of the several sorts of Tea, of the Fishing, Agriculture of the* Chinese, &c. *with several Observations not hitherto taken notice of.*

SIR,

MY last to you was from the Island of *Borneo*, in which I gave you an account of our arrival there the 17th of *July*, where we staid but two Days, the Season of the Year being so far past, and from thence made the best of our way through the Streights of *Banca* with favourable Winds and Weather, till we came on the Coast of *China* the 13th of *August*, then we had variable Winds which carried us abreast of *Emuy* the 19th following, at which time the North East Winds setting in fresh, put us in great fears of losing our passage; whereupon we were forced

forced to turn it up against Wind and Current all the Way, the Weather so favouring us, that we were never but by our Top-sails, else we should have lost more Ground in one Day, than we could have gain'd in eight. The last of *August* we came to an Anchor under the *Crocodile* Islands, both to shelter us from the bad Weather, (which is generally expected on this Coast at new and full Moon, and has been fatal to a great many Ships) and also to look for fresh Water, which was now grown scarce with us, not having recruited since we came from the Cape of *Good Hope*: These are three small Islands lying in the Latitude of 26 Degrees, about six Leagues from the River of *Hocksieu*; on *two* whereof we found very good fresh Water, with a convenient Watering-place on the South West side of the innermost of the *three*; and by the assistance of a few *Chinese* Fisher-men we procured some fresh Provisions from the main-land, because we did not reckon it safe to adventure our selves thither, lest we should have been brought into Trouble by the Government there. While we lay here, on the fifth of *September* we had a suddain short shift of the Monsoon to S. W. the fury whereof others felt, in coming upon the Coast of *China* at the same time. The 8th of *September* we put to Sea again, turning to Windward Nights and Day without all the Islands, which are very numerous along this Coast, to which we were altogether strangers beyound *Enay*, and the Hydrography thereof is hitherto so imperfect, that there

there was no trusting to our Drafts, which made our Navigation somewhat more dangerous: However, on the first of *October* we got into the Latitude of 30 Degrees, where we came to an Anchor near the Land, until we found the way by Boat to *Chusan*, about 12 Leagues within the Islands; from whence we had a Pilot, who carried us safely thither on the 11th of *October*. Upon this Island the *Chineses* have granted us a Settlement and Liberty of Trade, but not to *Ning-po*, which is 6 or 8 hours sail to the Westward, all the way among Islands; this being the largest, is 8 or 9 Leagues in length from East to West, and 4 or 5 Leagues in breadth; about 3 Leagues from that point of the Main-Land called Cape *Liampo* by the *Portuguese*, but *Khi-tu* by the *Chinese*: At the West End of this Island is the Harbour very safe and convenient, were the Ships ride within call of the Factory, which is built close by the shore on a low plain Valley, with near 200 Houses about it for the Benefit of Trade; inhabited by Men, whose Jealousie has not as yet permitted them to let their Wives dwell here; for the Town were they are, is $\frac{1}{4}$ of a Mile further from the Shore, enviorn'd with a fine Stone Wall, about 3 Miles in Circumference, mounted with 22 square Bastions placed at irregular distances, besides 4 great Gates, on which are planted a few old Iron Guns, seldom or never used: The Houses within are very meanly built: Here the *Chumpsen* or Governour of the Island lives, and betwixt three and four thousand beggarly Inhabitants, most part Souldiers and Fish-

Fiſhermen; for the Trade of this place being newly granted, has not as yet brought any conſiderable Merchants hither. The Iſland in general abounds with all ſorts of Proviſions, ſuch as Cows, Buffalo's, Goats, Deer, Hogs wild and tame, Geeſe, Ducks and Hens; Rice, Wheat, Calavances, Coleworts, Turnips, Potatoes, Carrots, Beetes and Spinach; But for Merchandize there's none but what comes from *Ning-po*, *Hang-cheu*, *Nankin* and the Inland Towns, ſome of which I hope to ſee, when I have acquir'd a little of the *Chineſe* Language. Here alſo the Tea grows in great plenty on the tops of the Hills, but it is not in that eſteem with what grows on more Mountainous Iſlands. Altho this Iſland is pretty well ſtor'd with People, yet its far from what it was in *F. Martinius*'s time, whenh e deſcribes *Cheuxan*: and this puts me in mind, that the Superſtitious Pilgrimages thereto, mention'd by him, muſt be meant of the Iſland *Pou-to*, which lies 9 Leagues from hence, and 3 Miles to the Eaſtward of this Iſland, whither (they ſay) the Emperour deſigns in the Month of *May* next (being his Birth-day, and the 40th Year of his Age) to come to worſhip in an Ancient Pagod there, famous for Sanctity; having ſent one of his *Bonzes* already thither to get all things in order.

Chuſan,

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Chusan, Novemb. 22. 1701.

SIR,

I Formerly told you, that the Emperor design'd to have come to the Island of *Pou-to* (a place of great Devotion) to worship in the Month of *May* last, being the 40th Year of his Age, I should have said of his Reign; but all things being prepared there for his Reception, he was dissuaded from his purpose by some of his *Mandarines*, who made him believe that the terrible Thunder there was very dangerous. This *Pou-to* is a small Island about 5 Leagues round at the East end of this Island, famous for the Superstitious Pilgrimages made thither for the space of eleven hundred Years: It's inhabited only by *Bonzes*, to the number of 3000, all of the Sect call'd *Hoshang*, or unmarried *Bonzes*, who live a *Pythagorean* Life; and there they have built 400 Pagodes, two whereof are considerable for their greatness and finery, being lately covered with green and yellow Tiles brought from the Emperor's Palace at *Nankin*, and inwardly adorn'd with stately Idols finely grav'd and gilded, the chief whereof is the Idol *Quon-em*. To these two great Pagodes belong two chief Priests, who govern all the rest. They have several Ways and Avenues cut through the Island, some whereof are pav'd with Flagstones, and over-shaded with Trees planted on each side: Their dwellings are the best I have yet seen in these Parts. All which are

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maintain'd by Charitable Devotions; and the Junks which go from *Ning-po* and this place to *Japan*, touch there both going and coming, to make their Offerings for their good Succeſs. There is another Iſland call'd *Kin-tong* 5 Leagues hence in the way to *Ning-po*, whither, they ſay, do retire a great many *Mandarins* to live a quiet Life after they have given over their Employments; on that Iſland alſo are ſaid to be Silver Mines, but prohibted to be open'd. The reſt of the circumjacent Iſlands are either deſert, or meanly inhabited by a few fiſhing People, but all of them ſtor'd with abundance of Deer. For it is not long ſince this Iſland of *Chuſan* began to be Peopled; it's true, in *Martini*'s Days, about 50 Years ago, it was very Populous for the ſpace of three or four Years, at which time the fury of the *Tartarian* Conqueſt was ſo great, that they left it deſolate, not ſparing ſo much as the Mulberry Trees (for then they made a great deal of raw Silk here) and in this condition it continued till about 18 Years ago, that the Walls of the Fort or Town, which now is, were built by the Governor of *Ting-hai*, for a Garriſon to expel ſome Pyrats, who had taken ſhelter here. About 14 Years ago, the Iſland beginning to be peopled, there was a *Chumpeen* or General ſent to govern it for three Years, to whom ſucceeded the late *Chumpeen* (who procur'd the opening of this Port to Strangers) whoſe Government continued till *April* laſt, being tranſlated to be *Chumpeen* of *Tien-cing Wei* near to *Pekin*, and was ſucceeded by the preſent *Chumpeen*, who is Son to the Old *Chunkoon* of *Emuy*.

They

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They have got no Arts or Manufactories here, but making of lacker'd Ware, a particular Account whereof I cannot as yet send you. They begin to Plant Mulberry-Trees, to breed up Worms for the Production of raw Silk; and they make some Tea, but chiefly for their own use.

Altho' the following Particulars contain nothing of extraordinary matters in them, yet such as they are, you may take, till I can procure you better.

The three sorts of Tea commonly carry'd to *England* are all from the same Plant, only the Season of the Year, and the Soil, makes the difference. The *Bohee* (or *Voiii*, so call'd of some Mountains in the Province of *Fokien*, where it is chiefly made) is the very first bud gather'd, in the beginning of *March*, and dry'd in the Shade. The *Bing* Tea is the second growth in *April*: and *Singlo* the last in *May* and *June*, both dry'd a little in *Tatches* or Pans over the Fire. The Tea Shrub being an ever-green, is in Flower from *October* to *January*, and the Seed is ripe in *September* and *October* following, so that one may gather both Flowers and Seed at the same time; but for one fresh and full Seed, there are a hundred nought; these make up the two sorts of *Fruit* in *Le Compte*'s description of Tea: As for his other sort, which he calls flymic Pease, they were nothing but the young Buds of the Flowers not yet open. It's Seed-Vessels are really *Tricapsular*, each *Capsula* containing one Nut or Seed, and altho' two or one *Capsula* only comes to Perfection, yet the Vestiges of the rest may be discerned.

cerned. It grows in a dry gravelly Soil, on the sides of Hills in several places of this Island, without any Cultivation.

Le Compte is mistaken in saying (*pag.* 96.) that the *Chinese* are wholly Strangers to the Art of Grafting, for I have seen a great many of his Paradoxical Tallow-Trees ingrafted here, besides some other Trees. When they Ingraft, they do not slit the Stock as we do, but cut a small slice off the outside of the Stock, to which they apply the Graft (being cut sloping on one side, agreeable to the slice cut from the Stock) bringing up the Bark of the slice upon the outside of the Graft, they tie altogether, covering with Straw and Mud as we do.

The Commentator on *Magalhen* seems doubtful in the length of the *Chinese Che* or Cubit. Here they have two sorts, one of 13 $\frac{1}{10}$ *English* Inches, which the Merchants commonly use: The other is of eleven Inches, us'd by Carpenters, and also in Geographical Measures.

Albeit *F. Martini* is censur'd by *F. Magalhen* for spelling a great many *Chinese* Words with *ng*, which the *Portuguese* and others have done with *m*, yet his way is more agreeable to the *English* Pronunciation, only in some Words the *g* may be left out, as in *Pekin*, *Nankin*, &c.

Having made enquiry about *Martini*'s Account of Sowing their Fields at *Ven-cheu* with Oyster-shells, to make new ones grow; I was told that after they have taken out the Oysters, they sprinkle the Shells with Urine, then putting them into the Water again, there grows new Oysters on the foresaid Shells.

Martini ſays he could never find a *Latin* Name for the *Fula Mogorin* of the *Portugueſe*, I'm ſure it's the ſame with the *Syringa Arabica flore pleno albo in Parkinſone.* He ſays alſo, that the *Kieu-yeu* or Tallow-tree bears a white Flower like a Cherry-tree; but all that I have ſeen here bears a ſpike of ſmall yellow Flowers like the *julus* of a *Salix.*

The Bean, or *Mandarin* Broth, ſo frequently mentioned in the *Dutch* Embaſſy and other Authors, is only an Emulſion made of the Seed of *Seſamum* and hot Water.

Their chief Employments here are Fiſhing and Agriculture.

In Fiſhing, they uſe ſeveral ſorts of Nets and Lines as we do; but becauſe they have large Banks of Mud in ſome Places, the Fiſherman, to go more eaſily thereon, has contriv'd a ſmall frame about 3 or 4 Foot long, not much larger than a Hen-trough, elevated a little at each end, in which he reſts upon one Knee, leaning his Arms on a croſs Stick, rais'd ſo high as his Breaſt, and putting out the other Foot often upon the Mud, he puſhes forward his Frame thereon, and ſo carries himſelf along in it.

As to their Agriculture, all their Fields (where any thing is planted) whether high or low, are made into ſuch Plots as may retain the Water on them when they pleaſe. They Plow up their Ground with one Buffelo or one Cow. Where they are to Sow Rice, they prepare the Fields very well, by clearing it of all manner of Weeds, moiſtning to a Pulp, and ſmoothing it with a Frame drawn acroſs; on which they Sow the Rice very thick and co-

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ver it only with Water for two or three Inches high, and when it has grown 6 or 8 Inches long, they pull it up by the Roots, and tranſplant it (by Tufts in a ſtraight line) to Fields overflown with Water; and where a Field is ſubject to Weeds, when the Water drys up, they prevent their growth in overturning the Mud with their Hands in the interſtices where the Rice is planted. When they Sow Wheat, Barley, Pulſe, and other Grains, they grub up ſome ſuperficial Earth, Graſs and Roots, and with ſome Straw they burn all together; this Earth being ſifted fine, they mix with the Seed, which they Sow in holes made in a ſtrait Line, and ſo grows up in Tufts as the Rice does; the Field being divided into Beds and harrowed over, both before and after the Seed is Sown: This makes them ſomewhat reſemble Gardens. Altho' they meliorate their Fields, where they Sow Rice, only by letting the Water on them, yet for other Grains, where Ground requires it, they make uſe of Dung, Human Excrements, Aſhes, *&c.* In watering their Fields here they uſe the ſame Inſtrument mention'd by *Martini* in the Preface to his Atlas, being all of Wood, and the contrivance the ſame with that of a Chain-Pump.

Their method in making of Salt is this: All the Shores here being Mud, inſtead of Sand, in the Summer Seaſon they pare off the ſuperficial Earth, which has been over-flown with the Salt Water, and lay it up in heaps for uſe; when they are to uſe it they dry it in the Sun, rubbing it ſmall; then digging a Pit, they cover the bottom thereof with Straw, at which

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which thro' the side of the Pit they pass a hollow Cane, that leads into a Jar, which stands below the level of the Pits bottom; they fill the Pit almost full with the foresaid Earth, and pour Salt Water thereon, till it be covered two or three Inches with Water, which drains through, into the foresaid Jar, and is afterwards boil'd into Salt.

Had I not found the Printed News Papers last Year take notice of a singular Root brought from *China* by *F. Fontaney*, I should not have told you, that I have seen one since I came here call'd *Hu-chu-u* (which I take to be the same) whereto they ascribe wonderful Properties of prolonging Life, and turning grey Hairs into black, by drinking its Infusion for some time, insomuch that they say it's to be had in value from 10 *Tael* to 1000 or 2000 a single Root; for the larger it is, the more is its value and efficacy: Which is too much Money here to try the Experiment. You have it mention'd in *Cleyer*'s *Medicina Sinica* No. 84. under the Name of *Ho-xeu-u*, according to the *Portugal* Spelling: It's likewise painted in the 27th Table of those Plants Mr. *Petiver* had of me. If you'll have the Story of its Discovery, which I will not warrant for Gospel, it runs thus. Upon a time a certain Person going a Simpling among the Mountains, fell by accident into such a steep Valley that he could by no means get out of it again; whereupon looking about for something to sustain his Life; in this melancholy condition, he espy'd this Root, of which he made Tryal; and found that in eating thereof, it serv'd him both for Provisions and

Cloathing, by keeping his Body in ſuch a temperature, that the Injuries of the Weather had no influence upon him during his ſtay there, which was ſome hundreds of Years; till at laſt an Earthquake happen'd in that place, whereby the Mountains were rent, and he found a paſſage out to his Houſe, from whence he had been ſo long abſent: But the many alterations that came to paſs there in ſuch a ſpace of time, would not permit them to give Credit to his Story; till conſulting the Annals of their Family, which gave an Account of one of them loſt at that time, they were confirm'd in the truth of his Relation. And ſo much for this.

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A Letter from Mr. John Clayton *Rector of* Crofton *at* Wakefield *in* Yorkshire, *to the Royal Society,* May 12. 1688. *giving an Account of several Observables in* Virginia, *and in his Voyage thither, more particularly concerning the Air.*

HAving oftentimes been urged to give an Account of *Virginia*, by several of the Worthy Members of the Royal Society, I cannot but, as far forth as I am able, obey Commands whereby I'm so much honour'd, and show my Respect by my ready Compliance; tho' I am so sensible of my own Weakness and Incapacity to answer your Expectations, that before-hand I must Apologize for my self. And indeed by Sea I lost all my Books, Chymical Instruments, Glasses and Microscopes, which rendred me uncapable of making those Remarks and Observations I had designed, they were all cast away in Captain *Win*'s Ship, as they were to follow me; and *Virginia* being a Country where one cannot furnish ones self again with such things, I was discourag'd from making so diligent a Scrutiny as otherwise I might have done,

done, so that I took very few Minutes down in Writing; and therefore, since I have only my Memory to rely on, which too has the Disadvantage of it's own Weakness, and of the distance of two Years since now I left the Country, if future Relations shall in some small Points make out my Mistake, I thought this requisite to justifie my Candor; for I ever judg'd it villanous to impose in matters of Fact; but Descriptions of things that depend on Memory may be liable to Mistakes, and yet the sincerity of the Person that delivers them intire. But hereof I shall be as cautious as possible, and shall rather wave some things whereof I have some Doubts, and am uncapable now of satisfying my self, than in any sort presume too far. The method I design is, First, to give an Account of the Air, and all such Observations as refer thereto; then of the Water, the Earth and Soil; the Birds, the Beasts, the Fishes, the Plants, the Insects; and lastly, the present state of the Inhabitants: But at present I shall neither trouble you nor my self with any more than an Account of what refers to the Air alone, being conscious the Honourable Society may receive such a Glut with the Imperfection of this, as to excuse me from a farther Relation.

But before I begin, perhaps it may not be impertinent to acquaint you with some things that happen'd in our Voyage. We sail'd in the Ship *Judith*, Captain *Trim* Commander, 'twas Fly-boat built, about 200 or 250 Tuns; she sprung a considerable Leak. When the Captain had made long and diligent Search,

had

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had tried all methods that Sea-men uſe upon ſuch occaſions, or he could think of, all in vain, and that the Leak encreaſed, he came penſively to conſult me. Diſcourſing with him about it, and underſtanding that the Ship was Cieled within; ſo that though the Leak might poſſibly be in the fore-part, it would fill the whole Cavity betwixt the Cieling and the Planks, and ſo run into the Hold at all the Crevices of the Cieling up and down: I thereupon conceive, that where it burſt in betwixt the Cieling and the Planks, it muſt needs make ſome Noiſe. He told me, they had endeavoured to find it out that way, and according to cuſtom had clapt Cans to their Ears to hear with; but the working of the Ship, the Tackle and the Sea made ſuch a Noiſe, that they could diſcover nothing thereby. I happily bethought my ſelf of the Speaking Trumpet; and having one which I had contrived for ſome other Conveniences, of a differing ſhape from the common ſorts, I bid him take it and apply the broad end to the ſide of the Ship, the narrow end to his Ear, and it would encreaſe his Hearing as much as it augmented the Voice the other way, and would ward the Ear too from the confuſion of foreign Noiſe. Upon the firſt application, accordingly they heard it, tho' it happened to be at a conſiderable diſtance; and when they removed the Trumpet nigher, they heard it as if it had been the Current of a mighty River, even ſo diſtinctly, as to have Apprehenſions of the bigneſs and figure of the Hole that the Water came in at; ſo that cutting there the Seeling of the Ship, they immediately ſtopt the Leak. In

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In the Sea I ſaw many little things which the Seamen call Carvels; they are like a Jelly or Starch that is made with a caſt of Blue in it; they Swim like a ſmall Sheeps Bladder above the Water, downwards there are long Fibrous Strings, ſome whereof I have found near half a yard long. This I take to be a ſort of Sea-Plant, and the ſtrings its Roots growing in the Sea, as Duck-weed does in Ponds. It may be reckon'd among the Potential Cauteries; for when we were one day becalm'd, getting ſome to make Obſervations thereof, the ſportful People rub'd it on one anothers Hands and Faces, and where it touch'd it would make it look very Red, and make it ſmart worſe than a Nettle. In my return for *England* we ſtruck a Hauksbill Turtle, in whoſe Guts I found many of theſe Carvels; ſo that it's manifeſt they feed thereon. 'Tis commonly aſſerted by the Seamen, that they can ſmell the Pines at *Virginia* ſeveral Leagues at Sea before they ſee Land, but I could receive no Satisfaction as to this Point; I could not diſcern any ſuch thing when at a moderate diſtance, I fear much of this may be attributed to Fancy; for oneDay there came three or four full ſcent to tell me they were certain they ſmelt the Pines; but it afterwards prov'd that we were at that time 200 Leagues from the Shoar, ſo that I was ſatisfied that was therefore meer Fancy. Indeed we thought, by the general Accounts of the Ship, that we had been juſt on the Coaſt, but all were deceived by a Current

We

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we met with, that at that time ſet about South-East, or East South-East, which when once becalmed we tried thus: We hoiſed out a Boat, and took one of the Scuttles that cover'd one of the Hatches of the Ship, tying thereto a great Weight, and a ſtrong long Rope, we let it ſink a conſiderable depth, and then faſtning it to the Boat, it ſerv'd as an Anchor, that the Boat could not drive; then with the Glaſs and logg Line we found the Current ſet, as I ſay, Eaſtward, at the rate of a Mile and a half an Hour. This Current is of miſchievous Conſequence, it does not always run one way, but as it ſets ſometimes as we proved Eaſterly, ſo does it, as they ſay, ſet at other times Weſterly, whereby many Ships have been loſt; for then the Ships being before their Accounts, they fall in with the Land before they are aware. Thus one Year many Ships were loſt on Cape *Hattaraſſe*, and thereabouts.

Of the AIR.

THE Cape called *Cape Henry*, lies in 36½ of the Northern Latitude. The Air and Temperature of the Seaſons is much govern'd by Winds in *Virginia*, both as to Heat and Cold, Drineſs and Moiſture, whoſe Variations being very notable, I the more lamented the loſs of my Barometers and Thermometers, for conſiderable Obſervations might be made thereby, there being often great and ſuddain Changes. The Nore and Nore-Weſt are very nitrous, and piercing, cold

cold and clear, or else stormy. The South-East and South hazy and soultry hot: Their Winter is a fine clear Air, and dry, which renders it very pleasant: Their Frosts are short, but sometimes very sharp, that it will freeze the Rivers over three Miles broad; nay, the Secretary of State assured me, it had frozen clever over *Potomack* River, over against his House, where it is near nine Miles over: I have observed it freezes there the hardest, when from a moist South East, on a sudden the Wind passing by the Nore, a nitrous sharp Nore-West blows; not with high Gusts, but with a cutting brisk Air; and those Vails then that seem to be shelter'd from the Wind, and lie warm, where the Air is most stagnant and moist, are frozen the hardest, and seized the soonest, and there the Fruits are more subject to blast than where the Air has a free Motion. Snow falls sometimes in pretty quantity, but rarely continues there above a Day or two: Their Spring is about a Month earlier than in *England*; in *April* they have frequent Rains, sometimes several short and suddain Gusts. *May* and *June* the Heat encreases, and it is much like our Summer, being mitigated with gentle Breezes that rise about 9 of the Clock, and decrease and incline as the Sun rises and falls. *July* and *August* those Breezes cease, and the Air becomes stagnant, that the Heat is violent and troublesome. In *September* the Weather usually breaks suddenly, and there falls generally very considerable Rains. When the Weather breaks many fall Sick, this being the time of an Endemical Sickness, for

Sea-

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Seasonings, Cachexes, Fluxes, Scorbutical Dropsies, Gripes, or the like, which I have attributed to this Reason. That by the extraordinary Heat the ferment of the Blood being raised too high, and the Tone of the Stomach relaxed, when the Weather breaks the Blood palls, and like over-fermented Liquors is depauperated, or turns eager and sharp, and there's a crude Digestion, whence the named Distempers may be supposed to ensue. And for confirmation, I have observed the Carminative Seeds, such as warm, and whose Oil sheaths the acid Humors that ever result from crude Digestions. But Decoctions that retain the Tone of the Stomach, as I suppose, by making the little Glands in the Tunicles of the Stomach, squeeze out their Juice, (for what is bitter may be as well offensive to the Stomach, as to the Palate) and then Chalibiates that raise the decayed Ferment, are no bad Practice; after which, I conceive, Armoniack Spirits might be very beneficial. But their Doctors are so Learned, that I never met with any of them that understood what Armoniack Spirits were: Two or three of them one time ran me clear down by consent, that they were Vomitive, and that they never used any thing for that purpose but Crocus Metallorum, which indeed every House keeps; and if their Finger, as the Saying is, ake but, they immediatly give three or four Spoonfuls thereof; if this fail, they give him a second Dose, then perhaps Purge them with 15 or 20 Grains of the Rosin of Jalap, afterwards Sweat them with *Venice* Treacle, Powder of Snake-Root, or *Gascoin*'s Powder; re-

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and when theſe fail *conclamatum eſt.* But to return, 'Tis wonderful what influence the Air has over Mens Bodies, whereof I had my ſelf ſad aſſurances; for tho' I was in a very cloſe warm Room, where was a Fire conſtantly kept, yet there was not the leaſt Alteration or Change, whereof I was not ſenſible when I was ſick of the Gripes, of which Diſtemper I may give a farther account in its proper place. When a very Ingenious Gentlewoman was viſited with the ſame Diſtemper, I had the opportunity of making very conſiderable Obſervations. I ſtood at the Window, and could view the Clouds ariſe: For there ſmall black fleeting Clouds will ariſe, and be ſwiftly carry'd croſs the whole Element; and as theſe Clouds aroſe, and came nigher, her Torments were encreaſed, which were grievous as a labouring Womans; there was not the leaſt Cloud but lamentably affected her, and that at a conſiderable diſtance; but by her Shrieks it ſeemed more or leſs, according to the bigneſs and nearneſs of the Clouds. The Thunder there is attended often with fatal Circumſtances: I was with my Lord *Howard* of *Effingham* the Governour, when they brought Word that one Dr. *A.* was killed therewith, after this manner: He was Smoaking a Pipe of Tobacco, and looking out at his Window when he was ſtruck dead, and immediately became ſo ſtiff, that he did not fall, but ſtood leaning in the Window, with the Pipe in his Mouth, in the ſame poſture he was in when ſtruck: But this I only deliver as Report, tho' I heard the ſame Account from ſeveral, without any contradicting it.

Theſe

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Theſe things are remarkable, that it generally breaks in at the Gable end of the Houſes, and often kills Perſons in, or near the Chimneys range, darting moſt fiercely down the Funnel of the Chimney, more eſpecially if there be a Fire, (I ſpeak here confuſedly of Thunder and Lightning) for when they do any Miſchief, the Craſh and Lightning are at the ſame Inſtant, which muſt be from the nearneſs of the Cloud. One time when the Thunder ſplit the Maſt of a Boat at *James* Town, I ſaw it break from the Cloud, which it divided in two, and ſeem'd as if it had ſhot them immediatly a Mile aſunder, to the Eye: It is dangerous when it Thunders ſtanding in a narrow Paſſage, where there's a thorough Paſſage, or in a Room betwixt two Windows; tho' ſeveral have been kill'd in the open Fields. 'Tis incredible to tell how it will ſtrike large Oaks, ſhatter and ſhiver them, ſometimes twiſting round a Tree, ſometimes as if it ſtruck the Tree backwards and forwards. I had noted a fine ſpreading Oak in *James Town* Iſland, in the Morning I ſaw it fair and flouriſhing, in the Evening I obſerved all the Bark of the Body of the Tree, as if it had been artificially peel'd off; was orderly ſpread round the Tree, in a Ring, whoſe Semidiameter was four Yards, the Tree in the Center; all the Body of the Tree was ſhaken and ſplit, but its Boughs had all their Bark on; few Leaves were fallen, and thoſe on the Boughs as freſh as in the Morning, but gradually afterwards withered, as on a Tree that is fallen. I have ſeen ſeveral vaſt Oaks and other Timber

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Trees twisted, as if it had been a small Willow that a Man had twisted with his Hand, which I could suppose had been done by nothing but the Thunder. I have been told by very serious Planters, that 30 or 40 Years since, when the Country was not so open, the Thunder was more fierce, and that sometimes after violent Thunder and Rain, the Roads would seem to have perfect casts of Brimstone; and 'tis frequent after much Thunder and Lightning for the Air to have a perfect Sulphurious Smell. Durst I offer my weak Reasons when I write to so great Masters thereof, I should here consider the nature of Thunder, and compare it with some Sulphurious Spirits which I have drawn from Coals, that I could no way condense, yet were inflamable; nay, would burn after they pass'd through Water, and that seemingly fiercer, if they were not over-power'd therewith. I have kept of this Spirit a considerable time in Bladders; and tho' it appeared as if they were only blown with Air, yet if I let it forth, and fired it with a Match or Candle, it would continue burning till all were spent. It might be worthy Consideration likewise, whether those frequent Thunders proceeded from the Air's being more stagnant, the motion of the Winds being impeded by the Trees, or whether the motion of the Winds being obstructed by them below, the motion might not be more violent aloft; and how far that may promote inflammability, for Stacks of Hay or Corn that ferment with moisture, never burn, unless when brisk Winds blow, that agitate and fan the little

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little fermenting Sparks, and often kindle them into an actual Fire. And Observance of the Meteors there might perhaps not be Impertinent, as both what are more rare, and what are more frequent, as of *Gossimore* in great abundance, and of those small Cobwebs in a Morning, which some have supposed to be Meteors. *Ignes fatui*, tho' there be many boggy Swamps and Marshes, are seldom, if any are seen there. There be frequent little sorts of Whirl-winds, whose Diameter may be sometimes not past two or three Yards, sometimes forty, which whisking round in a Circle, pass along the Earth, according to the motion of the Cloud, from whence they issue; and as they pass along with their gyrous or circular motion, they carry aloft the dry Leaves into the Air, which fall again often in places far remote. I have seen them descend in a calm Sun-shine Day, as if they had come from the Heavens in great Showers thereof, so that all the Elements seem'd filled therewith. And I could perceive them to descend from on high as far as I could possibly discern a Leaf. I remember a roguish Expression of a Seamen, otherwise silly enough, who wondering thereat, cry'd out, *Sure now 'tis manifest there is a World above!* and now with them 'tis the Fall of the Leaf. But to proceed, I thought this made it manifest, whence many preternatural Showers have happen'd. I remember at Sir *Richard Atherton*'s in *Lancashire*, some few Years ago, there fell a great number of the Seeds of Ivy-berries; at first we admir'd what they were, for they were cover'd with a thin

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Skin that was red, and resembled the Figure of a small Wheat Corn; but afterwards they fully manifested what they were; for many sprouted and took Root. I suppose they were carry'd aloft by some such Whirl-wind, and let fall there. I have purposely gone into the place where I perceived this Gust, which is notorious enough by the Noise it makes, with ratling the Leaves as it carries them aloft, and have found a fine sharp Breeze of Wind.

Yours, &c.

Mr.

Mr. Clayton's *ſecond Letter, containing his farther Obſervations on* Virginia.

BEing honour'd with the Thanks of the Society for my laſt, and receiving by my worthy Friend Dr. *Moulin* their Commands to proceed, I have added here my Obſervations of the Waters, and part of the Earth and Soil. I ſhall wave both Complements and Apologies, ſince I have greater Reſpect and Honour for the Society than I can poſſibly expreſs, and have no reaſon to ſuſpect their Favour, whoſe Candidneſs I ſo ſignally proved in my laſt.

Of the WATER.

TWixt the two Capes, the Southern, call'd the *Cape Henry*, the more Northerly call'd *Cape Charles*, there runs up a great Bay, call'd the Bay of *Cheeſepeak*; nine Leagues over in ſome places, in moſt Seven, lying much Weſt, Nore and South, dividing *Virginia* into two unequal Parts. On the Eaſt ſide of this Bay there lies a narrow neck of Land, which makes the Counties of *Northamp-*

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ton and *Accomack*. On the West side of the Bay there branches forth four great Rivers, *James River*, *York River*, *Rapahanack* and *Potomack*, that rise from a ridge of Mountains, whereof more in the Sequel. These Rivers plentifully water all the other parts of *Virginia*, emptying themselves into the great Bay. The Mouth of *James River*, which is the most Southerly of them, the Mouth of *Potomack*, which is the most Northerly, may be a hundred Miles distance: But as I have been credibly inform'd that the Falls of *James River* are not past thirty Miles from *Potomack*, which is a vast large River nine Miles over in many places. I have been told it was Navigable nigh two hundred Miles, much higher than any of the other Rivers: Whence I conclude in future times, it will be the most considerable for Trade when the Country comes to be inhabited further up into the main Land. The other Rivers are much about three Miles over a piece. And *James River* is Navigable at least eighty Miles. Within four or five Miles of *James Town*, *James River* and *York River* are not past four or five Miles asunder. Yea, Sloops of considerable Carriage may Sail up the Branches of the two Rivers, till they come within a Mile the one of the other; for I take it to be no more from Col. *Bollards* to Major *Troop*'s Landing, and I believe they may come much what as near again as Col. *Coles*, and several other places. *York* River is distant from *Rapahanack* in some places not past ten or twelve Miles, *Rapanack* from *Potomack* not past

past seven Miles in one place, tho' it may be sixty in others. The Heads of the Branches of the Rivers interfere and lock one within another, which I think is best expressed after the manner that an *Indian* explained himself once to me, when I enquired how nigh the Rivers of *Carolina*, *Virginia* and *Maryland* arose out of the Mountains? from those that ran Westerly on the other side of the Mountains, he clapt the Fingers of one Hand 'twixt those of the other, crying, they meet thus; the Branches of different Rivers rising not past a hundred Paces distant one from another: So that no Country in the World can be more curiously watered. But this conveniency, that in future times may make her like the *Netherlands*, the richest place in all *America*, at the present I look on the greatest Impediment to the advance of the Country, as it is the greatest Obstacle to Trade and Commerce. For the great number of Rivers and the thinness of the Inhabitants distract and disperse a Trade. So that all Ships in general gather each their Loading up and down an hundred Miles distant; and the best of Trade that can be driven is only a sort of *Scotch* Pedling; for they must carry all sort of Truck that trade thither, having one Commodity to pass off another. This (*i. e.*) the number of Rivers, is one of the chief Reasons why they have no Towns; for every one being more sollicitous for a private Interest and Conveniency, than for a publick, they will either be for making forty Towns at once, that is, two

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In every Country, or none at all, which is the Countries Ruin. But to return, The Tides in these Rivers regularly ebb and flow about two Foot perpendicular at *James Town*; there is there, as they call it, a Tide and half Tide, that is, it flows near two hours along by the Shoar, after that it is ebb in the Channel, and again it ebbs near two Hours by the Shoar, after that it is Flood in the Channel. This is great advantage to the Boats passing up and down the River. I suppose this is caused by many Creeks and Branches of the Rivers, which being considerable many, tho' only three or four Miles long, yet as broad as the *Thames* at *London*; others ten Miles long, some above twenty, that have little fresh Water which they carry of their own, but their Current primarily depending upon the Flux and Re-flux of the Sea. So that after the Tide is made in the Channel, it flows by the Shoar a considerable time afterwards, being that those Creeks are still to fill, and therefore as it were draws up a Source upwards by the Shoar; and likewise when the Tide returns in the Channel, the Creeks that could not so readily disburse their Water, being still to empty themselves, they make an ebbing by the Shoar a considerable time after that it is Flood, as I say, in the Channel. So far as the Salt Waters reach the Country is deemed less healthy. In the Freshes they more rarely are troubled with the Seasonings, and those Ehdemical Distempers about *September* and *October*. This being very remarkable,

I

I refer the Reaſon to the more piercing Genius of thoſe moſt judicious Members of the Society: And it might perhaps be worthy the Diſquiſition of the moſt Learned to give an Account of the various alterations and fatal effects that the Air has on humane Bodies, eſpecially when impregnated with a Marine Salt; more peculiarly when ſuch an Air becomes ſtagnant: This might perhaps make ſeveral beneficial Diſcoveries, not only in relation to thoſe Diſtempers in *America*, but perhaps take in your *Kentiſh* Agues, and many others remarkable enough in our own Nation. I lately was making ſome Obſervations of this nature, on a Lady of a delicate Conſtitution, who living in a clear Air, and removing towards the Sea-Coaſt, was lamentably afflicted therewith, which both my ſelf and others attributed to this Cauſe, ſhe having formerly upon her going to the ſame, been ſeized in the ſame manner. But to return: There is one thing more in reference to this very thing very remarkable in *Virginia*, generally twice in the Year, Spring and Fall, at certain Spring-Tides, the moſt of the Cattle will ſet on gadding, and run, tho' it be twenty or thirty Miles, to the River to drink the Salt Water, at which time there's ſcarce any ſtooping of them; which the People know ſo well, that if about thoſe times their Heards are ſtray'd from their Plantations, without more ſollicitation they go directly to the Rivers to fetch them home again. As for the Waters in the Springs in general, they are, I think, ſomewhat more

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eager than thoſe in *England*. In that I have obſerved, they require ſome quantity more of Malt to make ſtrong Beer than our *Engliſh* Waters, and will not bear Soap. I have try'd ſeveral by infuſing of Galls, and found little difference in the Colours, turning much what the Colour of common Sack in Taverns. I tried two Wells at Col. *Birds*, by the Falls of *James River*, ſeveral Wells near *James Town*, ſome Springs in the *Iſle of Wight County*: There's a Spring in the *Iſle of Wight*, or *Nanzamond County*, vents the greateſt Source of Water I ever ſaw, excepting *Holy-well in Wales*, but I had not opportunity to make Experiments thereof. I tried likewiſe ſome Springs on the Banks of *York River*, in *New Kent* and *Glouceſter County*, but found them vary very little as to Colour. I could not try any thing as to their ſpecifick Gravity, having neither Aquapoiſe, nor thoſe other Glaſſes I had contrived peculiarly for making ſuch Experiments, they being all loſt with my other things. I had Glaſſes blown would hold about five Ounces, others about ten Ounces, with Necks ſo ſmall, that a Drop would make a conſiderable Variation; with theſe I could make much more critical and ſatisfactory Obſervations as to the ſpecifical Gravity of Liquors, having critical Scales, than by any other way yet by me tried. I uſed this method to weigh Urines, which Practice I would recommend to the Inquiſitive and critical Phyſicians. I had made many Obſervations hereof, but all Notes were

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likewise lost with my other things. Yet I have begun afresh; for there are more signal Variations in the Weights of Urines than one would at first imagin; and when the Eye can discover little, but judge two Urines to be alike, they may be found to differ very much as to Weight. By Weight I find Observations may be made of Affections in the Head, which rarely make any visible Alterations in the Urine. I have found two Urines not much unlike differ two and twenty Grains in the quantity of about four or five Ounces: But let them that make these Essays weigh all their Urines when cold, lest they be thereby deceiv'd. But to return to the Spring Waters in *Virginia*. There's a Spring at my Lady *Berkley*'s, called *Green-Spring*, whereof I have been often told, so very Cold, that 'tis dangerous drinking thereof in Summer-time, it having proved of fatal Consequence to several. I never tried any thing of what Nature it is of.

There be many petrefying Waters; and indeed I believe few of the Waters but participate of a petrifying Quality, tho' there be few Pebbles or paving Stones to be found in all the Country. But I have found many Sticks with crusty Congelations round them in the Ruins of Springs, and Stones figured like Honey-Combs, with many little Stars as it were shot in the Holes. And nothing is more common than petrefy'd Shells, unless you would

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would determine that they are parts of natural Rock ſhot in thoſe Figures, which indeed I rather think; but thereof hereafter. Mr. Secretary *Spencer* has told me of ſome Waters participating much of *Alome* or *Vitriol* towards *Potomack*. Up beyond the Falls of *Rapahanack* I have heard of Poyſonous Waters. But theſe I only mention as a hint to further Enquiry of ſome others, for I can ſay nothing of them my ſelf.

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A Continuation of Mr. John Clayton's *Account of* Virginia.

Of the Earth and Soil.

WHen you make the Capes of *Virginia*, you may observe it low Land, so that at some distance the Trees appear as if they grew in the Water; and as you approach nigher to emerge thence. For a hundred Miles up into the Country, there are few Stones to be found, only in some places, Rocks of Iron Oar appear, which made me expect to have found many Waters turn Purple with Galls, but never met with any. Providence has supplied the common use of Stones, by making the Roads very good: so that they ride their Horses without shooing them; which yet are more rarely beaten on their Feet, than ours are in *England*, the Country and Clime being dry, their Hoofs are much harder; For I observed, that take a Horse out of the wet Marshes, and Swamps, as they there call them, and ride him immediatly, and he'll quickly be tender-footed. In some places, for several Miles together, the Earth is so intermix'd with Oyster-shells, that there may seem as many Shells as Earth; and how deep they lie thus intermingled, I think, is not yet known: for at bro-

broken Banks they discover themselves to be continued many Yards perpendicular. In several places these Shells are much closer, and being petrefied, seem to make a Vein of a Rock. I have seen in several places, Veins of these Rocky Shells, three or four Yards thick, at the foot of a Hill, whose Precipice might be twenty Yards perpendicular, whose Delf, I suppose, shot under the Hill, pieces of these Rocks broken off, lie there, which, I suppose, may weigh twenty or thirty Tuns a piece, and are as difficult to be broken as our Free-stone. Of these Rocks of Oyster-shells that are not so much petrified, they burn and make all their Lime; whereof they have that store, that no Generation will consume. Whether these were formerly Oysters, which left by the subsiding Seas, (as some suppose, that all that Tract of Land, now high Ground, was once overflowed by the Sea) were since petrefied, or truly Stones, *sui Generis*, I leave to the Honourable Society to determin. But when I consider the constant and distinct shooting of several Salts, Nature's Curiosity, in every thing, so far exceeding that of Art, that the most Ingenious, when referr'd thereto, seem only endued with an Apish fondness, I cannot think any thing too difficult or wonderful for Nature; and indeed I do not apprehend, why it may not be as feasible to suppose them to have been Rocks, at first shot into those Figures, as to conceive the Sea to have amass'd such a vast number of Oyster-shells one upon another, and afterwards subsiding, should leave them cover'd with such Mountains of

Earth,

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Earth, under which they should petrefie: But not to launch forth too far into those Disputes, since I must modestly remember to whom I write. Often, in the looser Banks of Shells and Earth, are found perfect Teeth petrefied, some whereof I have seen, could not be less than two or three Inches long, and above an Inch broad: Tho' they were not Maxilary Teeth, the part that one might suppose grew out of the Jaw, was polish'd, and black, almost as Jett; the part which had been fasten'd in the Jaw and Gums, was brown, and not so shiningly polish'd, or smooth; if they were, as they seemed to be, really Teeth, I suppose, they must have been of Fishes. The back-Bone of a Whale, and as I remember, they told me of some of the Ribs, were digg'd out of the side of a Hill, several Yards deep in the Ground, about four Miles distant from *James Town*, and the River. Mr. *Banister*, a Gentleman pretty curious in those things, shew'd me likewise the Joynt of a Whale's back-Bone, and several Teeth, some whereof, he said, were found in Hills beyond the Falls of *James* River, at least, a hundred and fifty Miles up into the Country. The Soil in general is Sandy: I had designed, and I think it might be worth a critical Remark, to observe, the difference of Soils seem appropriated to the several sorts of Tobacco: For there is not only the two distinct sorts of a sweet-scented, and Aranoko Tobacco, but of each of these be several sorts much different, the Seeds whereof are known by distinct Names, they having given them the Names of those Gen-

Gentlemen most famed for such sort of Tobacco, as of *Prior*-seed, *&c.* Nay, the same sort of Seed in different Earths, will produce Tobacco much different, as to goodness. The richer the Ground, the better it is for Aranoko Tobacco, whose Scent is not much minded, their only aim being to have it specious, large, and to procure it a bright Kite's Foot colour. Had not my Microscopes, *&c.* Tools to grind Glasses, been cast away, with my other things, I had made some critical Enquiries into their several Natures, I would have examin'd what proportions of Salts, all the sorts of Earths had afforded, and how Water impregnated with their Salts, would have changed with infusing Galls, how with the Syrup of Violets, and how they would have percipitated Mercury, or the like, and so far forth as I had been able, examined them by the several Tryals of Fire. I conceive Tobacco to be a Plant abounding with Nitro-Sulphurious Particles; for the Planters try the goodness of their Seed, by casting a little thereof into the Fire; if it be good, it will sparkle after the manner of Gun-powder: so will the Stalks of Tobacco-leaves, and perhaps has something analagous to the Narcotick Sulphur of *Venus*, which the Chymists so industriously labour after. The World knows little of the efficacy of its Oyl, which has wonderful Effects in the curing of old inveterate Sores, and Scrophulous Swellings, and some, otherwise applied and qualified. The goodness of Tobacco I look on primarily consists in the volatility of its Nitre: And hence the

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sandy Grounds that are most impregnated therewith, and whose Nitrous Salt is most Volatile, for such Grounds are quickliest spent, yield Tobacco's that have the richest Scent, and that shortly becomes a pleasant Smoak; whereas, in Tobacco that grows on stiff Ground, the Salts seem more fix'd, and lock'd up in the Oyl, so that whilst new, 'tis very heady and strong, and requires some time for its Salts to free themselves, and become Volatile; which it manifests, by its having an Urinous Smell. The same Reason satisfies, why Tobacco that grows on low Lands as far as the Salts, tho' the Plant be never overflowed with Salt Water, yet the Ground that feeds the Plant being impregnated with Salt Water, that Tobacco Smoaks not pleasantly, and will scarcely keep Fire, but do all that a Man can, will oft go out, and gives much trouble in frequent lighting the Pipe, 'till after it has been kept some considerable time: Which may be assign'd to the fixeder Saline Particles of the Marine Salt in these Plants, which require more time e'er they be render'd Volatile. Here it might be worthy an Enquiry into the Nature of Filtration of Plants, since we may hence gather, Particles of the Marine Salt are carried along with the *Succus Nutritius* of the Plant; concerning which, if it were not too much to deviate from the Matter in hand, I should offer some Reflections of my own, which the Learned Society might perhaps improve: For I think thence might be made many happy Conjectures as to the Virtues of Plants. So where we see Plants,

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or Trees, of an open Pore growing low, we ſhall find their Juice has ſubtile Parts: So have all Vines, whether the Grape Vine, or Briony, or a Smilax, or the like. If a Gummous Plant or Tree, that grows low, and cloſe Pored, it abounds with acid Spirits, as *Lignum Vitæ*, &c. if it grow tall, and be open Pored, it abounds with a ſubtile Volatile Spirit, as your Firrs, and the Turpentine Tree. But to inſiſt no further herein, than as this may be applicable to the preſent Diſcourſe: For I have obſerved, that that which is called Pine-wood Land, tho' it be a ſandy Soil, even the Sweet-ſcented Tobacco that grows thereon, being large and porous, agreeable to Aranoko Tobacco; it ſmoaks as courſly as Aranoko: Wherefore 'tis, that I believe the Microſcope might make notable Diſcoveries towards the knowledge of good Tobacco: For the cloſer the Compoſition of the Leaf, the better the Tobacco; and therefore the Planters and Merchants brag of the Subſtance of their Tobacco; which word, did they always take it in a true Sence, for the Solidneſs, and not miſtake it for the Thickneſs, it would be more conſonant to a true Obſervation: for as I ſaid of the Pine-wood Tobacco, ſome of it is thick and not Solid, and differs from the beſt Tobacco, as Buff does from Tann'd Leather; ſo that if the Tobacco be ſound and not Rotten, you may give a great gueſs at the goodneſs of Tobacco, when you weigh the Hogſheads, before you ſee them: For if an equal care be taken in the packing of them the beſt Tobacco will weigh the heavieſt, and

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and Pack the cloſeſt. Now I ſaid, that the Sweet-ſcented Tobacco moſt in vogue, which was moſt fam'd for its Scent, was that that grew on ſandy Land; which is true, if you would Smoak it whilſt new, or whilſt only two or three Years Old; but if you keep the ſtiff Land Tobacco, which is generally a Tobacco of great Subſtance five or ſix Years, it will much excel: For tho' the ſandy Land Tobacco abound with a Volatile Nitre at firſt, yet the ſtiff Land Tobacco abounds with a greater quantity of Nitre, only that it is lock'd up in its Oyl at firſt, and requires more time to extricate it ſelf, and become Volatile; but the Pine-wood Land having little of the Nitro-Sulphurious Particles, neither is, nor ever will make any thing of a rich Smoak. Diſcourſing hereof ſome days ſince, to a Gentleman of good Obſervation, that has been verſed with Maulting, he aſſured me, to back this my Suppoſition, or Hypotheſis, he had obſerved, that Barly that grew on ſtiff Ground, requir'd more time conſiderably to Mellow, and come to perfection, than that that grew on light Land. Having proceeded thus far to ſpeak of Tobacco, I ſhall add one or two things more. The Planters differ in their Judgments about the Time of Planting, or Pitching their Crops: Some are for Pitching their Crops very early, others late, without any diſtinction of the Nature of the Soils; and 'tis from the different Effects that they find, in that, ſometimes early, ſometimes the late Planting ſucceeds: But they have not the Reaſon to judge of the Cauſe, to conſider the Accidents

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of the Year, and the Difference of the Soils. In ſandy Grounds they need not ſtrive ſo much for early Planting, the Loſeneſs of the Earth, and the kind natur'd Soil, yielding all that it can, eaſily and ſpeedily, and Sand retaining the Heat, makes the Plants grow faſter. But in ſtiff Soils, if the Crops be not early pitch'd, ſo that during the Seaſon of Rains it have got conſiderable Roots, and ſhot them ſome depth, if early Droughts come, it ſo binds the Land, that the Roots never ſpread or ſhoot deeper, or further than the Hill that they are planted in: For they plant them as we do Cabbages, raiſing Hills to ſet every Plant in, about the bigneſs of a common Mole-hill: obſerving this on the Plantation where I lived, that it was ſtiff Ground, I adviſed them to Plant their Crops as early as poſſible; and in order thereunto, I tried ſeveral ways to further the Plants; but not to trouble you with the ſeveral Experiments that I made, in reference thereto: What I found moſt advantageous was, by taking an infuſion of Horſe-dung, and putting thereon Soot, and then my Seeds; this I kept Forty eight Hours in an ordinary digeſtive heat, I had two Beds left me to Sow, in the midſt of thoſe the People ſow'd, and the quantity of Seed that they generally allotted to the ſame quantity of Ground; when I ſow'd, I mix'd Aſhes with the Seed, having decanted the Liquor, that the Seed might ſow the evenner: The effect was, that my Plants came up much ſooner, grew ſwifter, and I had five Plants for one more than any of the other Beds bore;

bore; I left the Country ſhortly after, and ſo no certainty of the final Reſult. There be had various Accidents and Diſtempers, whereunto Tobacco is liable, as the Worm, the Fly, Firing to Turn, as they call them, Frenchmen, and the like. I propos'd ſeveral ways to kill the Worm and Fly, as by Sulphur and the like; but had no opportunity to experiment it: I ſhall ſet down that I had moſt hopes of, which perhaps may give a hint to others to try or improve. Tobacco-ſeed is very ſmall, and by conſequence ſo is the young Plant at firſt, that if gleamy Weather happen at that time, it breeds a ſmall Fly, which conſumes the Plume of the Plant; now it being early in the Year when they Sow the Seed, *viz.* about the fourteenth of *January*, they cover the Ground, to ſecure, as well as they can, their tender Plants, from the nipping Froſts, that may happen in the Nights; they cover them only with a few Oak-leaves, or the like; for Straw they find apt to Harbour and Breed this Fly: I therefore would adviſe them to ſmoak Straw with Brimſtone, once in two or three Nights, and ſo they might cover them ſecurely, with that which would preſerve them infinitely beyond the Covering with Oak-boughs; indeed, I would adviſe them to keep peculiarly ſo much of their *Indian* Corn-blades, which they gather for their Fodder, for this very purpoſe, being as I conceive, much the beſt, there being no Chaff to foul their Beds, and prejudice them when they ſhould weed them. What they call Firing is this: When Plants are of ſmall Subſtance, as when there has

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been a very Wet and Cold Season, and very hot Weather suddainly ensues, the Leaves turn Brown, and dry to dust: the cause I conceive to be hence: The Plant being feeble, and having a small quantity of Oyl, which makes the more solid part of the Plant, the Earth being suddainly heated by the Sun's fiercer Beams, the Roots are rather scorch'd and dried up in the Earth, than nourish'd; so that the Plant consisting only of watry parts, is consumed, as it were, by Fire: sometimes hopeful Plants, when by a sudden Gust some Master Veins are broken, if suddain heat ensues, they likewise Fire: For being not come to maturity, and being deprived of the Supports of Life and Vegetation, they likewise perish, are dried up, and fall to dust. *French-men* they call those Plants, whose leaves do not spread and grow large, but rather spire upwards, and grow tall; these Plants they do not tend, being not worthy their Labour. Where they so Critical, I believe, they might have great Gues what Plants were most likely to turn *French-men*, by observing whether the Roots of the Plants run downwards, as those whose Branches are aptest to spire upwards: For tho' I have not made positive proof thereof, I have something more than bare fancy for my conjecture; I have pull'd up some of these *French-men*, and compar'd them with the Roots of some other Plants, and found them much longer than others; and 'tis observeable, loose Soils, and sandy Ground, are more subject thereto than the stiff Land. The Country of it self is one entire Wood, consisting

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conſiſting of large Timber Trees of ſeveral ſorts, free from Thickets or under Wood, the ſmall Shrubs growing only on Lands, that have been clear'd, or in Swamps; and thus it is for ſeveral Hundreds of Miles, even as far as has yet been diſcover'd. But that ſhall be reſerv'd 'till another opportunity.

I am, &c.

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Mr. John Clayton, *Rector of* Crofton *at* Wakefield, *his Letter to the* Royal Society, *giving a farther Account of the Soil, and other Observables of* Virginia.

I Shall here present you with a continuation of my Remarks on the River, Soil, and Plants of *Virginia*. And first, as to the River on the other side the Mountains, said to Ebb and Flow. I have been assured by Col. *Bird*, who is one of the Intelligentest Gentlemen in all *Virginia*, and knows more of *Indian* Affairs than any Man in the Country, that it was a Mistake; for that it must run into a Lake, now called *Lake Petite*, which is fresh Water; for since that time a Colony of the *French* are come down from *Canada*, and have seated themselves on the back of *Virginia*, where *Fallam* and the rest suppos'd there might be a Bay, but is a Lake, to which they have given the Name of *Lake Petite*, there being several larger Lakes 'twixt that and *Canada*. The *French* possessing themselves of these Lakes, no doubt will in short time be absolute Masters of the Beaver Trade, the greatest number of Beavers being catch'd there

there. The Colonel told me likewiſe, that the common Notion of the Lake of *Canada*, he was aſſured was a Miſtake, for the River ſuppoſed to come out of it, had no Communication with any of the Lakes, nor the Lakes one with another, but were diſtinct. But not to ramble after hear-ſay, and other matters; but to return to the Parts of *Virginia* inhabited by the *Engliſh*, which in general is a very Fertile Soil, far ſurpaſſing *England*, for there *Engliſh* Wheat (as they call it, to diſtinguiſh it from *Maze*, commonly called *Virginia* Wheat) yields generally 'twixt Fifteen and Thirty fold, the Ground only once plow'd; whereas 'tis a good Crop in *England* that yields above Eight fold, after all their Toil and Labour. And yet in truth 'tis only the barrenneſt Parts that they have cultivated, Tilling and Planting only the High-Lands, leaving the Richer Vales unſtirr'd, becauſe they underſtand not any thing of Draining. So that the Richeſt Meadow-Lands, which is one third of the Country, is Boggy, Marſh, and Swamp, whereof they make little Advantage, but looſe in them abundance of their Cattle, eſpecially at the firſt of the Spring, when the Cattle are weak, and venture too far after young Graſs. Whereas vaſt Improvements might be made thereof; for the generality of *Virginia* is a Sandy Land with a ſhallow Soil. So that after they have cleared a freſh piece of Ground out of the Woods, it will not bear Tobacco paſt two or three Years, unleſs Cow-pen'd; for they Manure their Ground by keeping their

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their Cattle, as in the South you do your Sheep, every Night confining them within Hurdles, which they remove when they have ſufficiently dung'd one ſpot of Ground; but alas! they cannot Improve much thus, beſides it produces a ſtrong ſort of Tobacco, in which the Smoakers ſay they can plainly taſte the fulſomneſs of the Dung. Therefore every three or four Years they muſt be for clearing a new piece of Ground out of Woods, which requires much Labour and Toil, it being ſo thick grown all over with Maſſy Timber. Thus their Plantations run over vaſt Tracts of Ground, each ambitioning to engroſs as much as they can, that they may be ſure to have enough to Plant, and for their Stocks and Herds of Cattel to Range and Feed in, that Plantations of 1000, 2000, or 3000 Acres are common, whereby the Country is thinly inhabited; their Living ſolitary and unſociable; Trading confuſed and diſperſed; beſides other Inconveniences: Whereas they might Improve 200 or 300 Acres to more Advantage, and would make the Country much more Healthy; for thoſe that have 3000 Acres, have ſcarce cleared 600 Acres thereof, which is peculiarly term'd the Plantation, being ſurrounded with the 2400 Acres of Woods: ſo that there can be no free or even motion of the Air, but the Air is kept either ſtagnant, or the lofty Sulphurous Particles of the Air, that are higher than the tops of the Trees, which are above as high again as the generality of the Woods in *England*, deſcending when they paſs over the cleared ſpots of Ground, muſt

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must needs in the violent heat of Summer, raise a preternatural Ferment, and produce bad Effects. Nor is it any advantage to their Stocks, or Crops; for did they but drain their Swamps, and Low-Lands, they have a very deep Soil, that would endure Planting twenty or thirty Years, and some would scarce ever be worn out, but be ever longer better, for they might lay them all Winter, or when they Pleased in Water, and the product of their Labour would be double or treble, whether Corn or Tobacco; and that this is no fond Projection, (though when I have discoursed the same to several, and in part shewn them how their particular Grounds might be drained at a very easie rate) they have either been so conceited of their old way, so sottish as not to apprehend, or so negligent as not to apply themselves thereto. But on the Plantation where I lived, I drained a good large Swamp, which fully answered expectation. The Gentlewoman where I lived, was a very Acute Ingenious Lady; who one day Discoursing the Overseer of her Servants, about pitching the ensuing Year's Crop. The Overseer was naming one place where he designed to Plant 30000 Plants, another place for 15000, another for 10000, and so forth the whole Crop, designed to be about 100000 Plants: Having observed the Year before he had done the like, and scattered his Crop up and down the Plantation, at Places a Mile, or a Mile and a half asunder, which was very Inconvenient, and whereby they lost much time. I interposed, and asked, why they did not Plant

Plant all their Crop together? The Fellow ſmiled as it were at my Ignorance, and ſaid, there was very good Reaſon for it. I replied, that was it I enquir'd after. He returned, the Plantation had been an old planted Plantation, and being but a ſmall Plot of Ground, was almoſt worn out, ſo that they had not Ground altogether that would bring forth Tobacco. I told him then they had better Ground than ever yet they had planted, and more than their Hands could manage. He ſmil'd again, and asked me, where? I then named ſuch a Swamp. He then ſaid ſcornfully, he thought what a Planter I was; that I underſtood better how to make a Sermon, then managing Tobacco. I replied with ſome warmneſs, tho' I hoped ſo, that was Impertinence, and no Anſwer. He then ſaid, that the Tobacco there would drown, and the Roots rot. I replied, that the whole Country would drown if the Rivers were ſtopt, but it might be laid as dry as any Land on the Plantation. In ſhort, we diſcourſed it very warmly, till he told me, he underſtood his own Buſineſs well enough, and did not deſire to learn of me. But the Gentlewoman attended ſomewhat better to my Reaſoning, and got me one day to go and ſhew her how I projected the draining of the Swamp, and thought it ſo feaſible, that ſhe was reſolved to have it done; and therefore deſir'd me I would again Diſcourſe her Overſeer, which I did ſeveral times, but he would by no means hearken thereto, and was ſo poſitive, that ſhe was forc'd to turn him away, to have her Servants ſet about the

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the Work; and with three Men in thirteen Days I drained the whole Swamp, it being Sandy Land, ſoaks and drains admirably well, and what I little expected, laid a Well dry at a conſiderable diſtance. The Gentlewoman was in *England* laſt Year, and I think Dr. *Moulin* was by when ſhe asked me. Now to teach her how ſhe might make her Tobacco that grew in the Swamp leſs, for it produced ſo very large, that it was ſuſpected to be of the *Aranoko* kind: I told her, though the complaint was rare, yet there was an Excellent Remedy for that, in letting every Plant bear eight or nine Leaves inſtead of four or five, and ſhe would have more Tobacco, and leſs Leaves. Now you muſt know they top their Tobacco, that is, take away the little top-bud, when the Plant has put forth as many Leaves as they think the Richneſs of the Ground will bring to a Subſtance; but generally when it has ſhot forth four or ſix Leaves. And when the top-bud is gone, it puts forth no more Leaves, but Side-branches, which they call Suckers, which they are careful ever to take away, that they may not empoveriſh the Leaves. I have been more tedious in the Particulars, the fullier to evince how reſolute they are and conceitedly bent to follow their old Practice and Cuſtom, rather than to receive Directions from others, tho' plain, eaſie, and advantageous. There are many other Places as eaſie to drain as this, tho' of larger extent, and richer Soil, for ſome of which I have given directions, and have only had the return perhaps of a ſlout afterwards

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wards: Even in *James Town Iſland*, which is much what of an Oval Figure, there's a Swamp runs Diagonal-wiſe over the Iſland, whereby is loſt at leaſt 150 Acres of Land, which would be Meadow, which would turn to as good Account as if it were in *England:* Beſides it is the great annoyance of the Town, and no doubt but makes it much more unhealthy. If therefore they but ſcour'd the Channel, and made a pretty ordinary Trench all along the middle of the Swamp, plac'd a Sluce at the Mouth, where it opens into the back Creek; for the Mouth of the Channel there is narrow, has a good hard bottom, and is not paſt two Yards deep when the Flood is out; as if Nature had deſigned it before hand: They might thus drain all the Swamp abſolutely dry, or lay it under Water at their Pleaſure. I have talked ſeveral times hereof to Mr. *Sherwood*, the owner of the Swamp, yet nothing is eſſayed in Order thereto. And now ſince we are ſpeaking of *James Town* give me leave to adjoin ſome Reflections as to the Situation and Fortifications of the Place. The Natural Situation of the place is ſuch, as perhaps the World has not a more commodious Place for a Town, where all things conſpire for Advantage thereof.

James Town Iſland is rather a *Peninſula*, being joined to the Continent by a ſmall Neck of Land, not paſt Twenty or Thirty Yards over, and which at Spring-Tides is overflow'd, and is then an abſolute Iſland. Now they have built a ſilly ſort of a Fort, that is, a Brick Wall in the ſhape of a Half-Moon, at the beginning of the Swamp, becauſe the Chan-

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Channel of the River lies very nigh the Shoar; but it is the ſame as if a Fort were built at *Chelſey* to ſecure *London* from being taken by Shipping. Beſides Ships paſſing up the River are ſecured from the Guns of the Fort, till they come directly over-againſt the Fort, by reaſon the Fort ſtands in a Vale, and all the Guns directed down the River, that ſhould play on the Ships, as they are coming up the River, will lodge their Shot within Ten, Twenty, or Forty Yards in the riſing Bank, which is much above the Level of the Fort; ſo that if a Ship gave but a good Broad-ſide, juſt when ſhe comes to bear upon the Fort, ſhe might put the Fort into that confuſion, as to have free Paſſage enough. There was indeed an old Fort of Earth in the Town, being a ſort of *Tetragone*, with ſomething like Baſtions at the four Corners, as I remember; but the Channel lying further off to the middle of the River there, they let it be demoliſhed, and built that new one ſpoke of, of Brick, which ſeems little better than a blind Wall, to ſhoot Wild Ducks or Geeſe.

If they would build a Fort for the Security of the Town and Country, I conceive it ſhould be on *Archer's Hope Point*, for that would ſtop the Ships from paſſing up the River, before they came to the Town, and would ſecure the Town from being block'd up by Sea. The Channel at *Archer's Hope Point* lies cloſe by the Shoar, and makes ſuch an Angle there by reaſon of *Hog Iſland*, that going up or down the River, let the Wind be where it will, they muſt there bring the contrary Tack on

on Board, and generally when they About the Ship as they call it, they are ſo near the Shoar, that a Man may almoſt fling a Finger-ſtone on Board. How much this hinders the motion of a Ship, and what Confuſion it muſt be to them to bring a contrary Tack on Board, whilſt they have all the Guns of a Fort playing ſo nigh upon them, may readily be conceived. *Archer's Hope* is a Neck of Land, that runs down three Miles long, not much paſt half a Mile broad betwixt the Main River and *Archer's Hope Creek*, which has large Marſhes and Swamps; ſo that a Citadel built upon the Point, would almoſt be Impregnable, being it could be attack'd no way but one, which is ſo narrow a ſlender Neck of Land, that it would be difficult to take it that way: And it would ſecure *James Town* from being block'd, being it would not be paſt a Mile by Water, to the Point of *James Town Iſland*. The Iſland is ſo ſurrounded with Water and Marſhy Land, that the Town could never be Bomb'd by Land. But now to return to the Reflections of Improving, and Manuring of Land in *Virginia*; hitherto, as I have ſaid, they have uſed none but that of Cow-penning; yet I ſuppoſe they might find very good Marle in many places, I have ſeen both the red and blew Marle at ſome breaks of Hills: This would be the propereſt Manure for their Sandy Land, if they ſpread it not too thick, theirs being, as I have ſaid, a ſhallow, Sandy Soil, which was the Reaſon I never adviſed any to uſe Lime, tho' they have very good Lime of Oyſter-ſhells; but that's

that's the propereſt Manure for cold Clay Land, and not for a Sandy Soil. But as moſt Lands have one Swamp or another bordering on them, they may certainly get admirable Slitch, wherewith to Manure all their uplands. But this, ſay they, will not improve Ground, but clods and grows hard; 'tis true, it will do ſo for ſome time, a Year or two at the firſt; but did they caſt it in heaps, and let it lie for two or three Years after a Froſt or two had ſeized it, and it had been well pierced therewith, I doubt not it would turn to good Account: And for this too I have ſomething more than bare conjecture; for Diſcourſing it once with a good notable Planter, we went to view a heap thereof, that caſually he had caſt up 'twixt three and four Years before, and we found it not very binding, but rather a fine Natural Mold, whereupon he did confeſs, he then remembred that out of a ridge of the like Mold he had very large Plants, which muſt have been of the like Slime or Slitch caſt up before: But ſaid, that himſelf and others deſpaired of this Manure, becauſe they had taken of this Slitch freſh and moiſt out of the Swamp, and fill'd Tobacco Hills with it, and in the midſt of it planted their Plants, which ſo bound the Roots of their Plants, that they never came to any thing. But he ſaid, he then ſaw his Error, yet I have not heard he has remembred to Correct it. But 'tis ſtrange in how many things beſides they are remiſs, which one would think *Engliſh* Men ſhould not be guilty of. They neither Houſe nor Milk any of their Cows in Win-

ter, having a Notion that it would kill them; yet I perſwaded the afore-mentioned Lady where I lived, to Milk four Cows the laſt Winter that I ſtaid in the Country, whereof ſhe found ſo good Effect, that ſhe aſſured me ſhe would keep to my Advice for the future; and alſo as I had further urged, Houſe them too, for which they have mighty Conveniencies, their Tobacco Houſes being empty ever at that time of the Year, and may eaſily be fitted in two or three days time without any Prejudice; whereby their Cattle would be much ſheltered from thoſe Pinching ſharp Froſts that ſome Nights on a ſudden become very ſevere. I had another Project for the Preſervation of their Cattle proved very ſucceſsful; I urged the Lady to ſow her Wheat as early as poſſibly ſhe could, ſo that before Winter it might be well rooted, to be early and flouriſhing at the firſt of the Spring: So that ſhe might turn thereon her weak Cattle, and ſuch as ſhould at any time be ſwamp'd, whereby they might be recruited and ſaved, and it would do the Wheat good alſo. I adviſed her likewiſe to ſave, and carefully gather her *Indian* Corn-tops, and blades, and all her Straw, whatever could be made Fodder, for her Cattle; for they get no Hay, tho' I was urging her to that too, and to ſow *Saintfoin*; for being a Sandy Soil, I am confident it would turn to very good Account. They have little or no Graſs in Winter, ſo that their Cattle are pined and ſtarved, and many that are brought low and weak, when the Spring begins, venture too far into the Swamps after

after the fresh Grass, where they perish; so that several Persons lose ten, twenty or thirty Head of Cattle in a Year: I observed this was much owing to their Inadvertency and Error in their way of Managing and Feeding them; for they get little Fodder, but as they think Corn being more Nourishing, feed them with their *Indian* Corn, which they give them Morning and Evening; they spend thus a great quantity of Corn, and when all's done, what signifies two or three Heads of Corn to a Beast in a Morning? It makes them only linger about the Houses for more? and after that sweet Food they are not so prompt to brouze on the Trees, and the course Grass which the Country affords. So that thus their Guts shrink up, and they become Belly-shot as they call it. I advised therefore never to give them any thing in a Morning, whereby as soon as they were set forth of the Cow-pens, they would fall a feeding, and tho' they filled their Bellies only with such course stuff as had little Nourishment in it, yet it would keep out their Bellies, and they would have a better Digestion; and then when they were come home at Nights, to Fodder them, beginning with Straw and their courseſt Fodder, which they would learn to eat by degrees, before they tasted that that was more delicate, and whilst their digestion was strong, would yield them Nourishment to keep them still so; afterwards when the Winter pinched, their fine Fodder then would stand them in stead; and hereby they might preserve their weakest Cattle. By these Methods, and the help of

the Wheat-patch, she, the Gentlewoman where I lived, saved all her Cattle, and lost not one in Two Winters after, that I staid there; besides she saved above Twenty Barrels of Corn, as I remember that she told me she used to spend upon her Stock; and a Barrel of Corn is commonly worth Ten Shillings. Nay further, The last Spring she fed Two Beasts, a Bullock and a Cow, Fat, upon her Wheat, with the addition only of a little boil'd Corn, and yet the Wheat was scarce eat down enough. But to return again to the Nature of the Earth, which may be pretty well gather'd from what I have already said. I have observed, that at Five or Six yards deep, at the breaks of some banks, I have found veins of Clay, admirable good to make Pots, Pipes, or the like of, and whereof I suppose the *Indians* make their Pipes, and Pots, to boil their Meat in, which they make very handsomly, and will endure the Fire better than most Crucibles: I took of this Clay, dryed, powder'd, and sifted it; powdered and sifted Potsherds, and Glass; Three parts, Two parts and One part as I remember, and therewith made a large Crucible, which was the best I yet ever tried in my Life; I took it once red hot out of the Fire, and clapt it immediately into Water, and it started not at all. The Country abounds mightily with Iron Oar, that as I have been assured by some upon tryal, has been found very good. There are Rocks thereof appear at the precipice of Hills, at the foot whereof there runs a River fit for a Forge, and there's Wood enough to supply

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it with Charcoal; as I have heard there was formerly some Persons undertook the Work, and when they had made but a small quantity of Iron, which proved very good, the *Indian* Massacre happened, and they being higher seated than the then Inhabited part of the Country, were all cut off, and the Works demolished; so that it has frighted others I think from the like attempt; besides, such a work requires a greater Fund, and Bank of Mony to carry it on, than any there are able to lay out; and for Persons in *England* to meddle therewith, is certainly to be cheated at such a distance; some *Indians* brought Col. *Bird* some Black Lead, whereof he told me there was great store. There's very curious Chalk towards the falls of *Rapahanock* River, which they burn and make a delicate white Wash of it. The Secretary of State Col. *Spencer*, has assured me, there were Vitriolick or Alluminous Earth on the Banks of *Potomack*. And thus far of what my Memory supplies me, referring to the Earth; in the next place I shall give a short account of the Birds.

Of the BIRDS

I Had indeed begun once whilst I was in that Country to have made a Collection of the Birds, but falling sick of the Griping of the Guts, some of them for want of care corrupted, which made them fling others away that I had thoroughly cured; for I was

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past taking care of them my self, there remaining but small hopes of my Life.

There are Three sorts of Eagles, the largest I take to be that they call the Grey Eagle, being much of the colour of our Kite or Glead.

The Second is the Bald Eagle, for the Body and part of the Neck being of a dark brown, the upper part of the Neck and Head is covered with a white sort of Down, whereby it looks very bald, whence it is so named.

The Third is the Black Eagle, resembling most the *English* Eagle; they build their Nests much after the manner that Dr. *Willoughby* describes, and generally at the top of some tall old Tree, naked of Bows and nigh the River side, and the People fall the Tree generally when they take the young; they are most frequently sitting on some tall Tree by the River side, whence they may have a prospect up and down the River, as I suppose to observe the Fishing Hauks; for when they see the Fishing Hauk has struck a Fish, immediately they take Wing, and 'tis sometimes very pleasant to behold the Flight, for when the Fishing Hauk perceives her self pursued, she will scream and make a terrible noise, till at length she lets fall the Fish to make her own escape, which the Eagle frequently catches before it reach the Earth or Water. These Eagles kill young Lambs, Pigs, *&c.*

The Fishing Hauk is an absolute Species of a Kings-fisher, but full as large, or larger than our Jay, much of the Colour and Shape

Shape of a Kings-fisher, tho' not altogether so curiously Feather'd; it has a large Crop, as I remember, there is a little Kings-fisher much the same in every respect with ours.

If I much mistake not, I have seen both Gos, Hauk, and Falcon; besides there are several sorts of the lesser Kind of Stannels.

There is likewise the Kite and the Ring-tale.

I never heard the Cuckow there to my remembrance.

There's both a brown Owl and white Owl, much what as large as a Goose, which often kills their Hens and Poultry in the Night; the white Owl is a very delicate Feather'd Bird, all the Feathers upon her Breast and Back being Snow-white, and tipp'd with a Punctal of Jet-black: besides there is a Barn Owl much like ours; and a little sort of Scritch Owl.

There's both the Raven, and the Carrion-Crow; I do not remember I ever saw any Rooks there. Dr. *Moulin* and my self, when we made our Anatomies together, when I was at *London*, we shew'd to the *Royal Society*, that all Flat-bill'd Birds that groped for their Meat, had three Pair of Nerves, that came down into their Bills; whereby as we conceived they had that accuracy to distinguish what was proper for Food, and what to be rejected by their Taste when they did not see it; and as this was most evident in a Duck's Bill and Head, I draw'd a Cut thereof, and left it in your Custody: A Duck has larger Nerves that come into their Bills than Geese or any other Bird that I have

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ſeen and therefore quafer and grope out their Meat the moſt: But I had then diſcover'd none of theſe Nerves in Round-bill'd Birds: But ſince in my Anatomies in the Country, in a Rook I firſt obſerved two Nerves came down betwixt the Eyes into the upper Bill, but conſiderably ſmaller than any of the three Pair of Nerves in the Bills of Ducks, but larger than the Nerves in any other Round-bill'd Birds; and 'tis remarkable theſe Birds more than any other Round-bill'd Birds ſeem to grope for their Meat in Cow-dung and the like: Since I have found in ſeveral Round-bill'd Birds the like Nerves coming down betwixt the Eyes, but ſo very ſmall that had I not ſeen them firſt in a Rook I ſhould ſcarce have made the diſcovery; in the lower Bill there are Nerves have much the ſame ſituation with the Flat-bill'd Birds, but very ſmall, and ſcarce diſcernable, unleſs to the Cautious and Curious.

The Night Raven, which ſome call the *Virginia* Bat, is about the bigneſs of a Cuckow, feather'd like them but very ſhort, and ſhort Leg'd, not diſcernable when it flies, which is only in the Evening ſcuding like our Night Raven.

There's a great ſort of ravenous Bird that feeds upon Carrion, as big very nigh as an Eagle, which they call a Turky Buſtard, its Feathers are of a Duskiſh black, it has red Gills, reſembling thoſe of a Turky, whence it has its Name; it is nothing of the ſame ſort of Bird with our *Engliſh* Turky Buſtard, but is rather a Species of the Kites, for it will hover on the Wing ſomething like them,

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them, and is carnivorous; the Fat thereof dissolved into an Oil, is recommended mightily against old Aches and Sciatica Pains.

I think there are no Jackdaws, nor any Magpys; they there prize a Magpye as much as we do their Red Bird.

The *Pica Glandaria*, or Jay, is much less than our *English* Jay, and of another colour, for it is all blue where ours is brown, the Wings marbled as curiously as ours are, it has both the same Cry, and sudden jetting Motion.

There are great Variety and Curiosity in the Wood-peckers, there's one as big as our Magpye, with blackish brown Feathers, and a large Scarlet Tuft on the top of the Head: There are four or five sorts of Wood-peckers more, variegated with Green, Yellow and Red Heads, others spotted black and and white, most lovely to behold. There's a Tradition amongst them, that the Tongue of one of these Wood-peckers dryed will make the Teeth drop out if pick'd therewith, and cure the Tooth-ach (tho' I believe little of it, but look on it ridiculous) yet I thought fit to hint as much that others may try; for sometimes such old Stories refer to some peculiar Vertues, tho' not to all that is said of them.

There be wild Turkies extream large; they talk of Turkies that have been kill'd, that have weigh'd betwixt 50 and 60 Pound weight; the largest that ever I saw, weigh'd something better than 38 Pound; they have very long Legs, and will run prodigiously fast. I remember not that ever I saw any of them on the Wing,

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Wing, except it were once: Their Feathers are of a blackiſh ſhining Colour, that in the Sun ſhine like a Dove's Neck, very ſpecious.

Hens and Cocks are for the moſt part without Tails and Rumps; and as ſome have aſſured me our *Engliſh* Hens after ſome time being kept there have their Rumps Rot off; which I'm the apter to believe, being all their Hens are certainly of *Engliſh* breed. I'm ſorry I made no Anatomical Obſervations thereof, and Remarks about the Uſe of the Rumps in Birds, which at preſent I take to be a couple of Glands, containing a ſort of Juice for the Varniſhing the Feathers; having obſerved all Birds have much recourſe with their Bills to the Rumps when they dreſs their Plumes, whereby they ſcud thro' the Air more nimbly in their Flight.

Patridges there are much ſmaller than ours, and reſort in Covies as ours do; their Fleſh is very white, and much excels ours in my mind, *Sed de guſtibus non eſt diſputandum.*

Their Turtle-Doves are of a duskiſh blue colour, much leſs than our common Pidgeon, the whole Train is longer much than the Tails of our Pidgeons, the middle Feather being the longeſt. There's the ſtrangeſt Story of a vaſt number of theſe Pidgeons that came in a Flock a few Years before I came thither; they ſay they came thro' *New England*, *New York* and *Virginia*, and were ſo prodigious in number as to darken the Sky for ſeveral Hours in the place over which they flew, and brake maſſie Bows where they light; and many like things which I have had aſ-

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ſerted to me by many Eye-witneſſes of Credit, that to me it was without doubt, the Relaters being very ſober Perſons, and all agreeing in a Story: nothing of the like ever happen'd ſince, nor did I ever ſee paſt Ten in a Flock together that I remember. I am not fond of ſuch Stories, and had ſuppreſſed the relating of it, but that I have heard the ſame from very many.

The Thruſh and Feldefire are much like ours, and are only ſeen in Winter there, accordingly as they are here.

Their Mocking Birds may be compared to our Singing Thruſhes, being much of the ſame bigneſs; there are two ſorts, the Gray and the Red, the gray has Feathers much of the colour of our gray Plovers with white in the Wings like a Magpye; this has the much ſofter Note, and will imitate, in its ſinging, the Notes of all Birds that it hears, and is accounted much the fineſt Singing Bird in the World. Dr. *Moulin* and I made in our Anatomy many Obſervations of Singing Birds to this effect: The Ears of Birds differ much from thoſe of Men or Beaſts, there's almoſt a direct paſſage from one Ear to the other of Birds, ſo that prick but the ſmall Membrane call'd the Drum on either Ear, and Water poured in at one Ear will run out at the other: But this is not all, but what is much more remarkable, they have no Cochlea, but inſtead thereof there's a ſmall Cocleous or twiſting Paſſage that opens into a large Cavity, that runs betwixt two Skulls, and paſſes all round the Head, the upper Scull is ſupported by many hundreds of ſmall Thred-

Thred-like Pillars or Fibers, which as we supposed had another use also, to break the Sound from making any confused Eccho, and to make it one and distinct; this passage we observed betwixt the two Skulls was much larger in Singing Birds than in others that do not sing, so very remarkable that any Person that has been but shown this may easily judge by the Head what Bird is a Singing Bird, or has aptitude thereto, tho' he never saw the Bird before, nor knew what Bird it were: This has often made me reflect how much the Modification of Voices depends upon the acuracy of the Ear, and how deaf Persons become Dumb: And since I have observed that many Children that have an acute Wit enough that are slow of Speech, that is long before they speak are much longer before they can pronounce those Letters that are sharps, as *g. h. r.* and never have an aptitude to learn to sing. Hence I judge that Songs that have many Sharps in them are the difficultest to sing well, and discover any Persons skill upon the trial of Musick most. This I suppose only, having no Skill in Musick my self, nor having ever discourse any Person about it. As I remember we show'd some of these things to the *Royal Society*, and I drew some Cuts thereof, and gave the Doctor upon promise that he would put these and many other our joint Observations in Print, but I hear he is since dead. I have Anatomized most sorts of Creatures, and never found any Four-footed Creature with an Ear like a Bird, unless a Mole; and a Mole has an Ear much like them, with a very thin double Scull, and great Cavity like a Bird, and

is

is very accute of hearing, the Scull by reason of the large Cavity is very slender and easily crush'd, so that a Mole is quickly kill'd with a bruise on the Scull like a Lark, and upon the bruise the Membranes of the Scull turn black; whence *Segerus* mistake *Membrana Cerebri in superficie exteriori omnino nigra visæ.* But when I have taken care not to bruise the Skull the Membranes were not black at all, both *Segerus* and *Severinus* I think had some perceptions of the different Structure of a Mole's Ear, but not any thing of its Analogy to a Bird's Ear; they speak of a Bone *Egregie pumicosum:* And *Segerus* says there's a *Ductus ad ossis usque petrosi cavitatem protensus, plurimis fibrillis Membraneis annectabatur.* But to return, this Mocking Bird having its Name from *Mimicking*, all other Birds in singing is a wonderful mettled Bird, bold and brisk, and yet seems to be of a very tender Constitution, neither singing in Winter, nor in the midst of Summer, and with much difficulty are any of them brought to live in *England.*

The Red Mocking is of a duskish red, or rather brown; it sings very well, but has not so soft a Note as the gray Mocking Bird.

Of *Virginia* Nightingale, or red Bird, there are two sorts, the Cocks of both sorts are of a pure Scarlet, the Hens of a Duskish red; I distinguish them into two sorts, for the one has a tufted Cops on the Head, the other is smooth-feather'd. I never saw a tufted Cock with a smooth-headed Hen, or on the contrary; they generally resorting a Cock and Hen together, and play in a Thicket

et of Thorns or Bryars in the Winter, nigh to which the Boys set their Traps, and so catch them and sell them to the Merchants for about Six Pence apiece; by whom they are brought for *England*; they are something less than a Thrush.

There's a Bird very injurious to Corn, they call a Blackbird; I look on it a sort of Starling, for they cry something like them but do not sing, are much what of the same bigness, have Flesh blackish like theirs; they resort in great Flocks together, they are as black as a Crow all over their Bills and all, only some of them have scarlet Feathers in the Pinions of their Wings. *Query*, Whether a distinct Species?

They have a Lark nothing differing from our common Lark; they have another Bird which they call a Lark that is much larger, as big as a Starling, it has a soft Note, feeds on the Ground; and as I remember has the Specifical Character of a long Heel, it is more inclined to yellow, and has a large half Moon on its Breast of yellow; if it have not a long Heel, *Quere*, Whether a Species of the Yellow-hammer?

They have a Martin very like, only larger than ours, that builds after the same manner. The honourable Col. *Bacon* has remarked for several Years, that they constantly come thither upon the Tenth of *March*, one or two of them appearing before, being seen hovering in the Air for a Day or two then go away, and as he supposed return'd with the great Flock. The Colonel delighted much in this Bird, and made like Pidgeon-holes

at

at the end of his Houſe with Boards purpoſely for them.

Their Swallow differs but little from ours.

They have a Bird they call a Blue-bird, of a curious azure colour about the bigneſs of a Chafinch.

There be other ſorts of Goldfinches variegated with Orange and Yellow Feathers, very ſpecious and beautiful.

Sparrows not much different from the *Engliſh*, but build not in the Eaves of Houſes that ever I ſaw.

The Snow-bird which I take to be much the ſame with our Hedge-Sparrow; this is ſo called becauſe it ſeldom appears about Houſes but againſt Snow or very cold Weather.

The Humming Bird that feeds upon the Hony of Flowers: I have been told by ſome Perſons, that they have kept of theſe Humming Birds alive, and fed them with Water and Sugar: they are much the ſmalleſt of all Birds, have long Bills and curious coloured Feathers, but differ much in colour.

Hearons three or four ſeveral ſorts, one larger than the *Engliſh*, feather'd much like a *Spaniſh* Gooſe.

Another ſort that only comes in Summer Milk white, with red Legs very lovely to behold.

The Bittern is there leſs than in *England*, and does not make that ſounding Noiſe that ever I heard.

Curlews ſomething leſs than our *Engliſh*, tho' bigger than a Wimbrel.

The Sandpiper much reſembling the *Engliſh*.

The Snipe, two ſorts, one reſembling ours, the other much leſs.

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The Tewits are smaller than the *English*, and have no long Toppins, but just like a young one that begins to fly.

There are a great number of wild Swans.

Wild-geese and Brent-geese all Winter in mighty Flocks, Wild-ducks innumerable, Teal, Wigeon, Sheldrakes, Virginia-didapers, the Black-diver, *&c.*

In my return home for *England*, *May* 1686. off of the Banks of *Newfound-land*, when we were, according to account, a hundred Leagues from the Shoar, we saw several prodigious floating Islands of the Ice, no less to our Wonder than Terror, for they were very dangerous: I got the Master to sail one day as nigh one of them as we securely durst, which we judged to be full a League in length, and was higher above Water than the top of our Main-mast; the Snow drove to and fro upon it as upon a large Plane. There was a great Flock of small Black-divers, that were not much bigger than a Feldifire, came to us a little before, but all of them then left and betook themselves to this Island of Ice. They dived the constantly'st, and the longest at a time of any Bird that I ever saw. We saw, as I remember, nigh Thirty of these Islands of Ice. Captain *Rider* being some fews days later in his Passage, and bearing more to the *Nore*, told me, he saw many more of these Islands of Ice, and some much larger.

There are in *Virginia* a great many Cormorants; several sorts of Gulls, and in about the Bay many Bannets. Thus much for the Birds. *Yours*, &c.

A Con-

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A Continuation of Mr. Clayton's *Account of* Virginia.

Of the Beaſts of Virginia.

THERE were neither Horſes, Bulls Cows, Sheep, or Swine, in all the Country, before the coming of the *Engliſh*, as I have heard, and have much reaſon to believe. But now among the *Engliſh* Inhabitants there are good ſtore of Horſes, though they are very negligent and careleſs about the Breed: It is true, there is a Law, that no Horſe ſhall be kept ſtoned under a certain ſize, but it is not put in execution. Such as they are, there are good ſtore, and as cheap or cheaper than in *England*, worth about Five Pounds apiece. They never Shoe them, nor Stable them in general; ſome few Gentlemen may be ſomething more Curious, but it is very rare; yet they Ride pretty ſharply, a Planter's Pace is a Proverb, which is a good ſharp Hand-Gallop. The *Indians* have not yet learned to Ride, only the King of *Pomonkie* had got three or four Horſes for his own Saddle, and an Attendant, which I think ſhould in no wiſe be indulged, for I look on the allowing them Horſes much more dangerous than even Guns and Powder.

Wild Bulls and *Cows* there are now in the uninhabited Parts, but ſuch only as have

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been bred from ſome that have ſtrayed, and become Wild, and have propagated their kind, and are difficult to be ſhot, having a great Acuteneſs of Smelling. The common rate of a Cow and Calf is 50 *s.* ſight unſeen, be ſhe big or little, they are never very curious to examine that Point.

Their *Sheep* are of a midling ſize, pretty fine fleeced in general, and moſt Perſons of Eſtate begin to keep Flocks, which hitherto has not been much regarded, becauſe of the Wolves that deſtroy them; ſo that a piece of Mutton is a finer Treat, than either Veniſon, Wild-Gooſe, Duck, Widgeon, or Teal.

Elke, I have heard of them beyond the Inhabitants, and that there was one preſented to Sir *William Berkley*, which he ſometime kept.

Deer, there are abundance of brave Red Deer, ſo that a good Woodſman, as they call them, will keep a Houſe with Veniſon; the *Indians*, they ſay, make Artificial ſorts of Heads of Boughs of Trees, which they Conſecrate to their Gods, and theſe they put on to deceive the Deer when they go a Shooting, or Hunting, as they call it, and by mimiking the Feeding of the Deer, they by degrees get within Shot.

Swine, they have now in great abundance, Shoats or Porkrels are their general Food; and I believe as good as any *Weſtphalia*, certainly far exceeding our *Engliſh*.

Rackoons, I take it to be a Species of a Monky, ſomething leſs than a Fox gray-hair'd, its Feet formed like a Hand, and the Face too has likewiſe the reſemblance of a Monkies,

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kies, besides being kept tame they are very Apish: They are very prejudicial to their Poultrey, as I remember.

An *Opossum*, as big, and something shaped like our Badgers, but of a lighter Dun colour, with a long Tail something like a Rat, but as thick as a Man's Thumb; the Skin of its Belly is very large, and folded so as to meet like a Purse, wherein they secure their Young whilst little and tender, which will as naturally run thither, as Chickens to a Hen; in these False Bellies they will carry their Young; these also feed on, and devour Corn.

Hares, many will have them to be a Hedg-Rabbet, but I know not what they mean thereby. I take them to be a perfect Species of Hares, because I have seen Leverets there with the white spot in the Head which the Old ones have not, so it is in *England*; and the Down is perfectly of the colour of our Hares, they sit as our Hares do, and make no Holes and Burrows in the Earth; true, they are but about the bigness of an *English* Rabbet, and run no faster; they generally take into some hollow Tree within a little space, which then the People catch by gathering the withered Leaves, and setting them on fire within the hollow of the Tree, and smoaking of them so till they fall down. Sometimes they take long Bryars, and twist them in the Down and Skin, and so pull them forth.

Squirrels, there are three sorts. The first is the great Fox Squirrel, much larger than the *English*, and gray, almost as a common Rabbet. These are very common, I have

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eaten of them at the beſt Gentlemens Tables, and they are as good as a Rabbet. The Second is the Flying Squirrel, of a lighter Dun colour, and much leſs than the *Engliſh* Squirrel; the Skin on either ſide the Belly extended is very large betwixt the fore-leg and hind-leg, which helps them much in their skipping from one Bough to another, that they will leap farther than the Fox-Squirrel, though much leſs, yet this is ſtill rather skipping than flying, though the diſtinction be well enough. The Third is the Ground-Squirrel, I never ſaw any of this ſort, only I have been told of them, and have had them thus deſcribed to me, to be little bigger than a Mouſe, finely ſpotted like a young Fawn; by what I further apprehended, they are an abſolute ſort of Dor-Mouſe, only different in colour.

Musk-Rats, in all things ſhaped like our Water-Rats, only ſomething larger, and is an abſolute Species of Water-Rats, only having a curious Musky ſcent: I kept one for a certain time in a wooden Cheſt; two days before it died it was extraordinary Odoriferous, and ſcented the Room very much; but the day that it died, and a day after the ſcent was very ſmall, yet afterwards the Skin was very fragrant; the Stones alſo ſmelt very well. They build Houſes as Beavers do, in the Marſhes and Swamps (as they there call them) by the Water-ſides, with two or three ways into them, and they are finely daubed within. I pulled one in pieces purpoſely to ſee the contrivance: There were three different Lodging-Rooms, very neat, one higher

er than another, as I conceive purposely made for Retirement, when the Water rises higher than ordinary; they are considerably large, having much Trash and Lumber to make their Houses withal; I suppose they live mostly on Fish.

Batts, as I remember at least two sorts; one a large sort with long Ears, and particularly long straggling Hairs. The other much like the *English*, something larger I think, very common.

I never heard of any *Lions*; they told me of a Creature killed whilst I was there, in *Gloucester* County, which I conceived to be a sort of Pard, or Tyger.

Bears there are, and yet bnt few in the Inhabited part of *Virginia*; towards *Carolina* there are many more. There was a small Bear killed within three Miles of *James City* the Year that I left the Country, but it was supposed to have strayed, and swam over *James River*. They are not very fierce, their Flesh is commended for a very rich sort of Pork; but the lying side of the Bear, as I remember, is but half the value of the other, weight for weight.

There are several sorts of *Wild-Cats* and *Poll-Cats*.

Beavers build their Houses in like manner as the Musk-Rats do, only much larger, and with pieces of Timber make Dams over Rivers; as I suppose either to preserve their Furs dry in their passage over the Rivers, otherwise to catch Fish by standing to watch them thereon, and jumping upon them on a sudden; they are very subtil Creatures, and

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if half the Stories be true that I have been told, they have a very orderly Government among them; in their Works each knows his proper Work and Station, and the Overseers beat those Young Ones that loiter in their Business, and will make them cry, and work stoutly.

Wolves there are great store; you may hear a Company Hunting in an Evening, and yelping like a pack of Beagles; but they are very cowardly, and dare scarce venture on any thing that faces them; yet if Hungry, will pull down a good large Sheep that flies from them. I never heard that any of them adventured to set on Man or Child.

Foxes, they are very much like ours, only their Fur is much more grisled, or gray; neither do I remember ever to have seen any Fox-holes, but of this I am not positive.

Every House keeps three or four Mungrel *Dogs* to destroy Vermin, such as *Wolves*, *Foxes*, *Rackoons*, *Opossums*, &c. But they never Hunt with Hounds, I suppose, because there are so many Branches of Rivers, that they cannot follow them. Neither do they keep Grey-Hounds, because they say, that they are subject to break their Necks by running against Trees, and any Cur will serve to run their Hares into a hollow Tree, where after the aforesaid manner they catch them.

They have great store both of Land and Water *Tortoises*, but they are very small, I think I never saw any in that Country to exceed a Foot in length; there is also another sort of Land-Tortoise, different from the common sort, with a higher ridged Back, and speckled with red sort of Spots.

Frogs

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Frogs they have of ſeveral ſorts, one of a prodigious largeneſs, eight or ten times as big as any in *England*, and it makes a ſtrange noiſe, ſomething like the Bellowing of a Bull, or betwixt that and the hollow ſounding noiſe that the Engliſh Bittern makes.

Another very common ſort, which they call *Toads*, becauſe black, but I think differs nothing from our black Frog. They have Toads alſo like ours in *England*; and another ſmall ſort of Frog, which makes a noiſe like Pack-horſe Bells all the Spring long. Another little green Frog, that will leap prodigiouſly, which they therefore call the Flying Frog. There is frequently heard in the Woods a ſhrill ſort of noiſe, much like that which our Shrew-Mouſe makes, but much ſharper; I could never learn the certainty what it was that made this noiſe, it is generally in a Tree, and ſome have aſſerted to me, that it was made by the green Frog, yet I ſcarcely believe it. Mr. *Baniſter* aſſured me it was made by a ſort of *Scarabeus* Beetle, that is I think full as big as the Humming-Bird; but neither do I believe that, and for this Reaſon, for I never ſaw that Beetle ſo low as the Salts, but always as high up in the Country as the Freſhes, and that noiſe is frequent all over the Country.

Lizards, that are gray, and very common, the Snakes feed much on them, for I have taken ſeveral of them out of the Bellies of Snakes.

Snakes, about ſeven ſeveral ſorts. The Rattle-Snake, ſo called from certain Rattles

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at the end of the Tail: Theſe Rattles ſeem like ſo many periſhed Joints, being a dry Husk over certain Joints, and the common Opinion is, that there are as many Rattles or Joints, as the Snake is years old. I kill'd four or five, and they had each eleven, twelve, or thirteen Joints each; but the young Ones have no Rattles of a year or two, but they may be known notwithſtanding, being very regularly diced or checker'd, black and gray on the backs. The Old ſhake and ſhiver theſe Rattles with wonderful nimbleneſs when they are any ways diſturbed; their bite is very deadly, yet not always of the ſame force, but more or leſs Mortal, accordingly as the Snake is in force or vigour, and therefore in *June* or *July* much worſe, and more Mortal, than in *March* and *April*. This Snake is a very Majeſtick ſort of Creature, and will ſcarce meddle with any thing unleſs provok'd, but if any thing offend it, it makes directly at them. I was told a pleaſant Story of an Old Gentlemen, Col. *Cleyborn* as I remember was his Name, the ſame that ſent the Rattle-Snakes to the *Royal Society* ſome Years ſince. He had an odd Fancy of keeping ſome of theſe Snakes always in Barrels in the Houſe, and one time an *Indian* pretending to Charm them ſo as to take them by the Neck in his Hand without biting of him; the Old Gentleman cauſed a Rattle-Snake to be brought forth, the *Indian* began his Charm with a little Wand, whiſking it round and round the Rattle-Snake's Head, bringing it by degrees nigher and nigher, and at length flung the Switch away,

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and whisked his Hand about in like manner, bringing his Hand nigher still and nigher, by taking less Circles, when the old Gentleman immediately hit the Snake with his Crutch, and the Snake snap'd the *Indian* by the Hand, and bit him very sharply betwixt the Fingers, which put his Charm to an end, and he roared out; but stretch'd his Arm out as high as he could, calling for a string, wherewith he bound his Arm as hard as possibly he could, and clapt a hot burning Coal thereon, and singed it stoutly, whereby he was cured, but looked pale a long while after. And I believe this truly one of the best ways in the World of Curing the Bite either of Viper or Mad Dog. I was with the Honourable Esquire *Boyle*, when he made certain Experiments of Curing the Bite of Vipers with certain *East-India* Snake-stones, that were sent him by King *James* the Second, the Queen, and some of the Nobility, purposely to have him try their Vertue and Efficacy: For that end he got some brisk Vipers, and made them bite the Thighs of certain Pullets, and the Breasts of others: He applied nothing to one of the Pullets, and it died within three Minutes and a half, as I remember; but I think they all recovered to which he applied the Snake-stones, tho' they turned wonderful pale, their Combs, *&c.* immediately, and they became extream sick, and purged within half an hour, and the next morning all their Flesh was turned green to a wonder, nevertheless they recovered by degrees. The manner of the Application was only by laying on the Stone, and

and by two croſs-bits of a very ſticking *Diaculum* Plaiſter binding it on, which he let not lie on paſt an hour or two, but I think not ſo long, took the Stone off, and put it into Milk for ſome time; ſome Stones were of much ſtronger Vertue than others. I propoſed a piece of unquench'd Lime-ſtone to be apply'd to ſee whether it might not prove as powerful, but know not whether ever it was tried. But here one telling Mr. *Boyle* the Story of this *Indian*, he approved the method of Cure, and ſaid, an actual Cautery was the moſt certain Cure. The Poiſon, both of Viper and Mad-Dog (as I conceive) kill by thickning of the Blood, after the manner that Runnet congeals Milk when they make Cheeſe. Vipers, and all the Viperous Brood, as Rattle-Snakes, *&c.* that are deadly, have I believe their Poiſonous Teeth Fiſtulous, for ſo I have obſerved that Vipers Teeth are, and the Rattle-Snakes very remarkable, and therefore they kill ſo very ſpeedily by injecting the Poiſon through thoſe Fiſtulous Teeth into the very Maſs of Blood; but the bite of Mad-Dogs is oft of long continuance before it get into and corrupt the Maſs of Blood, being it ſticks only to the out-ſides of the Teeth, and therefore when they bite thro' any thickneſs of Cloaths, it rarely proves Mortal, the Cloaths wiping the Poiſon off before it come to the Fleſh. A Girl that was bit about *New-Years Day*, continued well till *Whitſontide*, when coming to ſee certain Friends in our Parts, ſhe fell very ill, and being a Poor Girl, they came to me; it pleaſed God I recovered her. Sometime after

after ſhe returned to give me thanks for ſaving her Life, being two Perſons that were bit with the ſame Dog, were dead, whilſt ſhe remained under Cure, and therefore ſhe was the fullier convinc'd ſhe owed her life to me; but of this I ſhall give a more particular Inſtance by and by. But the Poiſons of Vipers ſeems to be like the injecting of Liquors into the Veins of Creatures; Dr. *Moulin* and I made many Experiments of this Nature together, and I have made many more by my ſelf. We once, I remember, injected half a Dram of Allom into the Jugalar-Vein of a Dog before the *Royal Society*, (the Allom being only diſſolved in a little Water) which within ſomething leſs than one Minutes time was ſo abſolutely dead, as not to have the leaſt Convulſive Motion; and I have done the like with many other things beſides Allom, but with ſome things it is more curdled and broken, than with others; and will differ much both as to colour and conſiſtence. Salt-Petre kills much as quickly as Allom, but then the Blood in the Heart looks very florid, ſmooth, and even. I wiſh ſome Perſon of Obſervation and Leiſure would proſecute theſe ſort of Experiments, and make Injections of the ſeveral things moſt uſed in Phyſick into the Veins of Creatures, both in quantities, and into different Veins, as into the Thigh-veins of ſome Dogs, and Jugalars of ſome others, and in much leſſer quantities of ſuch things as kill ſuddenly; for in the little time I have ſpent in theſe ſort of Experiments, I eaſily perceive notable diſcoveries might be made thereby: One Dog that lived

lived became Lame and Gouty; another with Quick-Silver died in about Sixteen Weeks time, Conſumptive, and I diſcovered Quick-Silver in the Impoſtumated parts of his Lungs. *Query*, Whether ſome Perſons that have been Flux'd, or uſed Quick-ſilver Oyntments, and the like, and afterwards become conſumptive, owe not their Diſtemwer to the abuſive uſe of a moſt excellent Remedy? Much after the ſame manner, the ſubtile Quick-Silver getting into the Maſs of Blood by degrees, through its ponderoſity ſettles in the Lobes of the Lungs, and cauſes Ulcers there. But to return: The Poiſon of Vipers and Mad Dogs I ſuppoſe kill by thickning of the Blood, as many Malignant Fevers, alſo do; in all which Caſes, I look on Volatil Salts to be the propereſt Phyſick, as keeping the Blood from congealing. I had a ſingular Inſtance hereof in a Gentleman of *Yorkſhire*, bit with a Grey-Hound on the *Thurſday*, not three Minutes before the Dog died Mad; he bit him in ſeveral places of the Hands, as he was giving him a Remedy: The *Monday* following the Gentleman was very ill, and came to our Town to an Apothecary his Acquaintance, who knowing not what to do, deſired my Aſſiſtance. When I came, the Gentleman could talk, but every two or three Minutes he had violent Fits, and would tell us when they were over, that his Brains worked like Birm in an Ale-Fat, and ſeemed to Froth up at every Fit. The Apothecary had no Volatile Salt of Vipers; ſo I took the Volatile Salt of Amber, and ordered him Ten Grains in Treacle-Water every

every half hour: He told me every Dose seemed to clear his Brain, and cool it as perfectly, as if a Baſon of Cold Water were poured on his Head, but it returned by degrees again: Having then a Volatile Salt by me that Vomits very well, I gave him a Dose thereof, it worked very well, and he was very much better after it: I then ordered him to continue the Volatile Salt of Amber once every four hours, and at each two hours end, that is betwixt, *Spec. Pleres Archonticon and Rue pouder'd ana gr.* 15. whereby he was so well recovered, that within two days he would needs go home, to look after some urgent Affairs, and afterwards found himself so well, that he forgot to return, and perfect the course; and I heard no more of him for half a Year, when I was fetch'd one Morning to him in great haſt. He had been abroad, play'd the Good-Fellow, and in his return home, having rode a great days Journey, being weary, and I suppose finding himself indisposed, he staid all Night in our Town, it being fortunately in his way. In the Morning when he should have got up, he could not stand, whereupon the Apothecary was sent for, and a Surgeon to Blood him, which was accordingly done, but he grew worse; for in this Case I look upon Bleeding to be very prejudicial, as well as in most Malignant Fevers, for thereby the Spirits are diminished, and the Blood congeal'd the sooner. When they had done all they could, and the Symptoms still increased, they at length sent for me. I never saw Man or Creature in that Agony in all my life, that I found him in; Sense-

Senseless, and Mad, when at best, but every Minute the fiercest shiverings ran through him, his Eyes would first roll and then set, as if ready to start out of his Head, but above all, the Swelling and Luctation at his Breast, was as if he would burst, which went off with a prodigious sigh: All this I judge the Effects of the Heart labouring to discharge it self of the stagnating Blood, and the Nervous Convulsions as consequences thereof. And I am the more confirm'd in this, from what I saw in a Woman that was bit also with a Mad-Dog in the Leg, and fell ill the very day that she had paid the Chirurgeon for her Cure; and notwithstanding all that could be done, growing worse, they sent for me; I went, and found her with what is called a *Hydrophobia*: She would look earnestly after Drink or Water, and seem to desire it, but as soon as she began to drink, away it went, be it what it would, with the greatest Violence she could possibly fling it. I gave her the Vomit hereafter and also before mentioned, but she got but little of it down, and I had no more with me; nevertheless it so brought her to her self, that she could answer Questions, and I asked her, whether she was afraid of the Drink and Water, when she flung the Cups in that violent manner from her? She said No; but when she offered to drink, her Breast and Heart would not let her. I asked, whether through any Aversion or Fear? She said, No, she was very Thirsty; but when she offered to drink, it struck to her Heart, and stopped her Breath. That is, as I apprehend, the cold Drink passing down the Throat struck

struck a chilness in the Blood, and made it readier to stagnate: Besides the very act of Drinking, hindring the free breathing, conduced also much thereto; and therefore the Heart was so suddenly oppress'd, that she could not forbear flinging away whatever she had in her Hand. She complained also of a great rigour and stiffness or straitness of the Muscles of her Breast, so that possibly the Spiritous Liquor that flows in the *Genus Nervosum* may be congeal'd as well as the Blood; or the same Effects may be supposed notwithstanding to be the result of the condensed Blood clogging both the Heart and Lungs, so that the Breast may seem to be straitned therewith. The same I judge to be the cause of all the violent Luxations in this Gentleman, whose Fingers I looked on, and found the places where he had formerly been bit, turned blackish, and much inflamed about them, which confirmed me in my sentiment, that it was a relapse of his former Distemper, that is, of the Bite of the Mad-Dog. I told them, if any thing in the World would save his Life, I judged it must be the former Vomit of Volatile Salts; they could not tell what to do, nevertheless such is the Malignacy of the World, that as soon as it was given, they ran away and left me, saying, he was now certainly a dead Man, to have a Vomit given in that condition. Nevertheless it pleased God that he shortly after cried, *This Fellow in the Black has done me good*, and after the first Vomit, came so to himself, as to know us all. I vomited him every other day with this Vomit for three times, and

and made him in the Interim to take Volatile Salt of Amber, and the aforeſaid Powders, and to waſh his Hands, and Sores in a ſtrong Salt Brine: to drink Poſſet-drink with Sage and Rue, and by this courſe, and the Bleſſing of God, his Life was ſaved, and he perfectly cured, for it is now four Years ſince, and he had had no Relapſe. I have cured ſeveral others by the ſame Method. Coll. *Spencer*, the Secretary of State in *Virginia*, a very Serious and Ingenious Gentleman, told me, that his Servant brought him word once that a Sow having farrow'd, a Rattle-Snake was got into the Den, and had kill'd the Piggs. The Colonel went to ſee the Snake, which they ſaid was ſtill coyl'd in the Den; there followed them two or three Mungrel Curs, and they ſat one of the Dogs at the Snake, which was too quick for the Dog, and ſnapt him by the Noſe, whereupon he ſet a howling, and run immediately into the adjacent River, and died very ſhortly after. Another of the Dogs upon the like attempt was bit by the Snake alſo, and fell a howling, and froathing, and tumbling; but being he died not ſo ſoon as the other Dog did, they fetched ſome of the Herb which they call Dittany, as having a great Traditionary Vertue for the Cure of Poiſons; they pounded it, and adding a little Water, expreſs'd the Juice, and gave the Dog frequently thereof, nevertheleſs he died within a day or two. The howling of the Dogs he ſuppoſed gave notice to the Sow, and made her come furiouſly briſling, and run immediately into her Den; but being likewiſe bit by the Snake, ſhe ſet up a

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terrible Squeak, and ran also into the River, and there died.

A Gentlewoman, that was a notable Female Doctress, told me, that a Neighbour being bit by a Rattle-Snake, swelled excessively; some days afterwards she was sent for, who found him swell'd beyond what she thought it had been possible for the Skin to contain, and very Thirsty. She gave him *Oriental Bezoar* shaved, with a strong Decoction of the aforesaid Dittany, whereby she recovered the Person: To the best of my Remembrance, it was he that told me, asking him afterwards, what he felt when the Snake first bit him? He said, it seemed as if a flash of Fire had ran through his Veins.

Besides the Rattle-Snake, there is the Blowing-Snake, an absolute Species of a Viper, but larger than any that I have seen in *Europe*; it is so called, because it seems to blow, and spread its Head, and swell very much before it bite, which is very deadly. It is Remarkable there is none of their Snakes there, make any of that hissing noise that ours in *England* make, but only shoot out their Tongues, shaking them as ours do, without any noise at all; this is a short thick sort of Snake, There is another sort of deadly Snake, called the *Red-Snake*; I once narrowly escaped treading on the back of one of them: They are of an ugly dark brown colour, inclining to red; their Bellies are of a more dusky white, with a large streak of Vermillion Red on eithe side; this too is of the Viper kind, but is not so short, but its Tail is more taper and small. The *Horn-Snake* is, as they

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ſay, another ſort of deadly Snake; I never ſaw any of them, unleſs once, ſhortly after my Arrival in that Country, which I cannot atteſt to be the Horn-Snake, for I could not diſtinctly view it, being in a Thicket of *Sumach*, it was perch'd up about two Foot high in a *Sumach* Branch, its Tail twiſted about the Shrub, and about a quarter of a Yard ſtood bolt forward, leaning over the forked branch thereof: I could not ſee the Horn, which they ſay it has in its front, wherewith it ſtrikes, and if it wounds, is as deadly as the Rattle-Snake's bite. The Gentleman that was with me, told me it was a Horn-Snake; but being in haſt, and on Horſe-back, and the Snake in a Thicket, I could not ſee the Horn; but had I thought I ſhould never have ſeen more of them, I ſhould have took a little pains to have been better ſatisfied. This I think may not improperly be referr'd to the *Dart-Snakes*.

The *Black-Snake*, is the largeſt I think of all others, but I am ſure the moſt common; I have kill'd ſeveral of them full ſix Foot long, their Bite is not deemed Mortal, but it ſwells, and turns to a Running Sore; they feed upon Lizards, Mice, Rats, Frogs, and Toads, which I have taken out of their Bellies. I was once a Simpling in the woods, on a fair Sun-ſhine day, when I ſaw a Snake crawling on a Tree that was fallen, and licking with its forked Tongue as it moved; I ſtood ſtill to obſerve it, and ſaw it lick up ſmall Inſects and Flies with wonderful nimbleneſs, catching them betwixt the Forks of its Tongue.

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The *Corn-Snake*, moſt like the Rattle-Snake of all others in colour, but the Checkers are not ſo regular, neither has it any Rattles: They are moſt frequent in the Corn-Fields, and thence I ſuppoſe ſo called; the Bite is not ſo venomous as the Black-Snakes.

The *Water-Snake*, a ſmall Snake, I never ſaw any of them above a Yard long, though I have ſometimes ſeen Forty or Fifty at once; they are of an ugly dark blackiſh colour: They ſay, they are the leaſt Venomous of any.

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Part of Two Letters from Mr. J. Hillier, *dated* Cape Corſe, Jan. 3. $168\frac{7}{8}$. *and* Apr. 25. 1688. *Wrote to the Reverend Dr.* Bathurſt, *Preſident of* Trinity Colledge, Oxon; *giving an Account of the Cuſtoms of the Inhabitants, the Air,* &c. *of that Place, together with an Account of the Weather there from* Nov. 24. 1686. *to the ſame Day* 1687.

Cape Corſe, Jan. 3. $168\frac{7}{8}$.

I Thought the Cuſtom of deſtroying Slaves at the Death of great People had been aboliſh'd, and I was ſo inform'd; but we have ſeen that it is not; for *Oct.* 3. this Year, died *Ahen Penin Aſbrive*, King of *Feton*, here at *Cape Corſe*, where he had been long ſick; the Fetiſhers had done all they could to ſave his Life, which was nothing at all to purpoſe; their Phyſick ſcarce extends to any thing but the Flux, and what we call the French Diſeaſe; his was a Conſumption and an Aſthma (if

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(if I miſtake not the Word) of a great continuance: ſo they fled to the Aid of their Religion, and according it ſeems to the Rules of that, they made ſeveral Pellets of Clay, which they ſet in his Room, in Rank and File, all ſprinkled with blood; beſides the ſeveral Muttons which they eat to his good Health. But that was of too little Force; ſo the Man died, having delivered his Sword to the Dy, who in the *Interregnum* was to be the principal Man, for the Kingdom is Elective, contrary to what we wrote before, and commanding him to be conſtant to the *Engliſh*, of whom himſelf had been a great Favourer, with a Threat, if he was not, of haunting him after his Death; he alſo appointed one of his Wives, whom he thought worthy of that unlucky Honour, to accompany him to the other World; the next Day he was carried to *Feton*, and buried there, *Nov.* 2. with the poor Woman we ſpoke of. Preſently after, they that were conſiderable, or had a mind to ſeem ſo, ſent in them that they had a mind to Murder in Honour of the King: how many there were 'tis hard to ſay, the higheſt Account gives 90, the loweſt 50, the middle 70; the Blacks do not underſtand Arithmetick, ſo the Numbets they give in all Caſes are very uncertain. I think there were about Eight from this Town, which will not hold Proportion to the higheſt rate; but 'tis like near *Feton* there might be more. They ſay alſo, that many more will follow at half a Years diſtance from his Death. The manner of the Execution of theſe poor Creatures I have not yet learnt, only that they

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make them drink and dance, with a great deal of Bravery all the begining of the Day, and towards Night cut off their Heads, but whether by that they mean the common way of their Executions I am yet to ſeek.

After the Kings Funeral, the next thing was to chuſe a Succeſſor; ſo the People was called together at *Feton*, (I ſuppoſe by the Authority of the Dy) without inquiring any thing of their Freehold; they pitched upon Mr. *Dy*, though he was not of the Blood-Royal; the Reaſon was, as they ſaid, becauſe he had Power enough to do what he pleas'd, and they could do nothing againſt him; but he refuſed the Honour becauſe of the Charge 'twould put him to, and propos'd the Brother of the deceaſed King: So the Buſineſs ſtuck ſome time, but at laſt 'twas accorded, and he [King *Aſhrive*'s Brother] declared King, *Nov.* 18. his Name is *Abenaco*.

'Tis Wonder how they could diſpatch ſuch a Buſineſs, with ſo little Diſturbance; but I ſuppoſe there was no conſiderable Number that diſſented; otherwiſe it would ſcarce have been determined without Blood-ſhed; for it would ſcarce have been poſſible for them to have taken any Pole.

I ſaid it was doubt whether theſe Sacrifices died after the rate of their ordinary Executions; if you would know that, thus it is, the Creature that is condemn'd, is made to drink abundance of Palm-Wine, and to dance, every Body that will, in the mean time ſtriking or puſhing him, when that is over, as is ſaid, he is thrown down, his Face into the Sand, which whether it ſtifle him or not, I can't

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can't tell, then his Legs are cut off below the Knees, and his Arms below the Elbow, afterward his Thigh and his Arms below the Shoulder, lastly his Head.

A Man would not expect any thing more barbarous than this; yet there is a Custom which has something worse; when any one has new Drums or Trumpets, 'tis necessary that they be consecrated with Humane Blood: I have known but one happen of this Kind, that was *Jan.* 7. 168$\frac{4}{7}$. when after the Man had been executed after the former rate, about Eight in the Morning; at one in the Afternoon, they drank Palm-Wine out of the upper part of his Skull, and this in the sight of all the Factors at *Cape Corse*,

I remember for the Unhealthiness of the Place, you proposed to inquire if it were Woody, and if any good might be done to it by cutting down the Woods, as has happen'd in many *American* Plantations; of that Matter this is what I can say.

The Shore lies almost East and West, expos'd to the Sea wholly upon the South, the Country is Hilly, the Hills not very high, but thick, clustering together, the Valleys between extream narrow, the whole in a manner cover'd with certain Shrubs, low, but very thick; what the People Till, comes not to above a Tenth part of their Ground; and where they do Till, it hinders not that within half a Year the Ground is over-grown as before, for they do not root up the Shrubs, but only cut, or sometimes burn them somewhat close to the Earth, so they spring again in a very little time; this is sufficient for

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their planting the Corn, which they do by making little Holes in the Earth at a competent Diſtance, and putting Seeds into them.

It may be that if thoſe Shrubs were deſtroyed, the Matter might be mended, which yet is not to be hop'd for, but by bringing the People to ſome kind of Induſtry, and that will not be eaſie; they are ſo wholly given to Lazineſs, and ſo intirely bred up in it, that there muſt be the greateſt Change imaginable, before they become any whit tolerable; a Man may ſee their Temper by this, that though their Tillage be very eaſie, and the Earth yields many Hundreds for One, yet ſo little is the uſe they make of it, that One ſcarce Year brings them to danger of Starving, and though there be People enough, and every Man has Power of chooſing what he will, that is not already Till'd by ſome other, yet not the Tenth Part, as we have ſaid, is imployed: So that a Man would wonder what came in the French Man's Head to fancy them Induſtrious; but ſubtile they are, and diligent to Cheat any Man that is not cautious enough to avoid it.

So that the Fault of the Wood is (by the Lazineſs of the People) without any Remedy. But there may be ſomething in the Earth it ſelf; the Water which they have here in Pits (Rain Water for the moſt part, but yet ſtrain'd through the Earth) has a kind of Taſte mixt of Sweet and Subacid, if I underſtand what I ſay, I am told 'tis of Vitriol, whether that be miſchievous, you know better than I do.

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But I take this for certain, ſince I have had it from good Hands, that at *Widdah*, which is one of the moſt unhealthy Places in *Guiney*, but 'tis not upon the Gold-coaſt, he that opens the Ground, though it be but to dig a Grave, runs the Hazard of his Life: So miſchievous are the Steams from thence ariſing. It's poſſible there may be ſome ſuch Steams here, only not ſo violent; though in *England*, I think, a Gravel or a Sand (which here are always uppermoſt for as much as I have ſeen) are eſteem'd very wholeſom Soils; under them is a kind of whitiſh Marle almoſt like Fullers-Earth.

For the Air, except what I have ſaid before, I do not know what Fault it has; 'tis extream hot, 'tis alſo ſubtile and piercing, and I believe enters a Man's Body eaſier than that in *England*. It has been clearer than that uſes to be one day with another, even this laſt Year, which has been the wetteſt and moſt cloudy which has happen'd a long time; I think to give you an Account of the Weather in it as ſoon as I have time to tranſcribe.

For the Age of the Inhabitants, 'tis very uncertain, becauſe none of them keep an Account of it; there are ſome of them very Grey, but if the Country be to them unhealthy, Grey Hairs may come early: I think there be many more Funerals here than at *Oxford*, though that be a much larger Place, eſpecially in the Rain-times, which to us are always healthful.

I think that much of the Mortality (not all) that happens among Strangers, is the Effect of their ill Diet, and ill Government

of

of themselves; for they eat but little, having neither Stomach nor Mony to buy what they want; but they drink excessively, being for that more readily trusted, and of Liquors very hot and Spirituous; and if any chuse the cold rather, his Stomach is chil'd, and he is in danger of a Flux or an extream Looseness, and that immediately.

There is another thing, Men guard themselves less from the Air than in any other Places trusting to the Heat of the Climate, and receive the cool of the Evening with only a Shirt. Now I think that the Air, tho' not so cold, is much more subtle and piercing here, than in our Country, it corrodes Iron much more, not by the Moisture, for it is not so moist, and besides it does it in the dry Weather too. Perhaps there are some other Effects to evidence the same thing; besides that, the Diet which most Men procure, is not extraordinary, and the passing by Canoes from one Place to another has a Danger in it beside that of the Sea.

Cape Corse, Apr. 25. 1688.

I Promised in my last to give you an Account of the Weather at *Cape Corse* for the last Year, which Account I have inclosed in this; it is as exact as I could give; 'tis a thing which has been very little observed, whether it deserves to be more, I do not know. That Year has had the most Rain of any that can be here remember'd; yet the Mortality was much less than the Years before; so that perhaps Wet is not that which makes the Country unhealthy; though we had

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had very many Sick, especially in *June* and *July*, whose Diseases were not Mortal.

If you give your self the Trouble to read the inclosed, you will find often mention of a Tornada, which is a violent Storm of Wind, followed commonly by Rain, but not always; the Wind ceases not presently upon the Rain, but after sometimes it does: In this Place it comes (as does an Hermitan) most frequently from the North, taking in the next Points, whether to the East or West, but chiefly the East, though I have seen both that and an Hermitan from other Points; so the Account is not without Exception; there are in it short, uncertain Blasts from all Quarters, which I believe reach not many Yards, but the general Wind (for ought that I see) is not so unconstant; Vessels that go to Windward are help'd by them, when they are not over strong, for they are opposite to the Sea Breze, and they can steer by them a regular Course; which sure they could not do, if they were very irregular. They never fail to give warning before hand, though sometimes after that warning they do not follow; there is a very black Cloud appears afar, in which if there be a kind of white Spot, the Wind will be most, if not the Rain; this the Sailors say. Sometimes there is that Mark, sometimes not, though I doubt the Prediction from it is not very certain; as neither are any perhaps of that kind.

An

An Account of the Weather at Cape Corse *in* Guiney, *from Nov.* 24. 1686. *to the same Day,* 1687.

Lat. N. 4*d.* 49*m.* *Nov.* 1686.

24. AND 25. Clear and Hot.

26. About 2. *a. m.* a Storm of Rain with Thunder for ½ Hour.

27. At the same Hour, Rain which lasted somewhat longer.

28. About 5. *a. m.* Some Rain, afterward Misty, about 10. extream hot.

29. About 2. *a. m.* a great storm of Rain, slacking often but renewing again, it lasted about an Hour; the Day after clear.

December, 1686.

Thence to *Dec.* 7. clear; then cloudy in the Morning; between 12. and 1. *p. m.* a Shower lasting about ½ Hour. Thence clear and hot.

10. A little Mist in the Morning, otherwise very clear and hot; so till 15.

15. And some Days after somewhat thick, especially in the Morning.

19, And 20. We had a dry North, and North-Easterly Wind, call'd an Hermitan, and it overcame the Sea-Brize; found very ill for the Eyes, and most Men complained of a Feverish Temper; it was parching, but rather colder than ordinary.

21. It ceased; a clear Air and very hot.

23. We had the Hermitan again; but the Morrow it ceased; then and

25. Some Clouds, but no Rain.

Thence

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Thence to 29. clear and hot; 29. the Hermitan returned, but did not continue.

Thence Clouds sometimes, but no Rain till *Jan.* 2.

This Month we had Three Funerals, one being Sick of the Flux laid violent Hands upon himself, through impatience of the Pain, the 3d Day.

The Second upon the 25th died convulsively, not having been Sick above one Day.

The Third, *Dec.* 27. died of a Dropsy, which had succeeded a tedious Flux.

January, $168\frac{6}{7}$.

2. About 5. *a. m.* Rain for ½ Hour between 7. and 9. an Hour; from ½ Hour past 9. to 1. *p. m.* the rest cloudy.

5. At 2. *a. m.* about ½ Hour.

8. At 1. in the Morning about an Hour, the Days between somewhat cloudy. Thence to 12. extream hot.

12, And 14. somewhat cloudy otherwise the Heat continued.

17. At 7. *p. m.* a Tornada for above ½ Hour, and about 12. at Night another; but the Heat very little abated.

22. Between 5. and 6. *p. m.* began a Tornada, which lasted above an Hour very violent, with great Claps of Thunder and Lightning. Tank fill'd 1 Foot.

23. In the Morning a great Mist, after 8. clear and extream hot.

The latter end of *January*, and the begining of *February* commonly Misty in the Morning; after extream hot.

I find no Funeral this Month. *Febru.*

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February, 168$\frac{4}{7}$.

Beginning of *February*, as before.

10. Somewhat Cloudy and cool, till then we were troubled with Coughs, for the most part; about this time they ceased.

So the 11th, toward Night, Thunder afar off, and expectation of a Tornada: but it fail'd.

12. Extream hot.

13. A stronger Wind than ordinary from Sea-ward.

14. Something like an Hermitan, but not from its usual Quarter. Clear and hot till about 2. *p. m.* then cloudy but no Rain.

Thence to 22. extream hot and clear.

From 22. to *March* 1. some flying clouds without Rain; sultry hot and unwholesom.

24. Some shew of a Tornada, but it past away.

This Month we had two Funerals, but their Diseases I find not.

March, 168$\frac{4}{7}$.

The beginning of *March* as the latter end of *February*.

5. From 6. *a. m.* for an Hour and $\frac{1}{2}$. a violent Tornada; the Day after cloudy. 6. Clear.

7. At Night Lightning and Clouds afar off; but nothing followed,

Thence to 11. clear and hot.

11. About 5. *a. m.* a violent Rain for almost $\frac{1}{2}$ Hour.

12. And 13. cloudy. 14.

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14. About 4. *a. m.* a gentle Shower but lasted not long.

15. Between 6. and 7. *a. m.* a few Drops, and likelyhood of more, but nothing followed; both Days cloudy.

16. Extream hot.

17. Somewhat cloudy.

Thence to 20. extream hot.

20. Cloudy; about 10. *a. m.* some few Drops.

21. Very hot.

22. In the Morning hot; about 12. a violent Rain for a Quarter of an Hour.

23. Clear.

24. About 2. *a. m.* Rain for about ½ Hour; the Day after clear.

Thence to *April* 3. clear and extream hot.

No Funeral.

April, 1687.

3. At 3. *p. m.* a violent Tornada, but only some few Drops of Rain; at 5. *p. m.* a little more Rain.

4. Cloudy by Fits, otherwise very hot.

5. Hot and clear.

6. In the Morning hot, about 2. *p. m.* cloudy; about 3. some Drops of Rain, in the Evening the Clouds dispersed.

7. Clear and hot.

8. Between 12. and 1. in the Morning, a violent Rain for near an Hour; after 2. one somewhat longer; the Day after there appeared to have been much Rain; Tank fill'd Two Foot and somewhat more.

9. About 7. *a. m.* some Drops cloudy all Day

10.

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10. Cloudy about a 11. *a. m.* a ſmall Miſt.

11. Preſently after Midnight it began to Rain and laſted till 6. *a. m.* a great part of the time very violently, it began with a ſtrong Tornada; Tank above Three Feet. The Day after ſome Clouds; otherwiſe extream hot.

So alſo 12, and 13.

14. About 5. *a. m.* a Shower for ½ Hour, between 6. and 7. *p. m.* another of the ſame continuance, the Day between extream hot.

So 15. 16. A Shower for ½ Hour, it began with a violent Tornada, the Rain not much, afterward cloudy.

17, And 18. Clear.

19. Clear alſo, about 7. *p. m.* a conſiderable Wind and ſome Drops of Rain.

20. Clear but Windy.

21. Between 12. and 2. moderate Rain for near an Hour.

22. About 2. *a. m.* moderate Rain almoſt an Hour; at 11. *p. m.* a ſhort Shower and gentle; the Day between extream hot.

23. Cloudy about 10. *a. m.* ſome Drops.

24. Extream hot.

25. About 1. *a. m.* Rain for near an Hour; the Morning after hot; Afternoon cloudy; moſt part of the Night, Thunder and Lightning, but no Rain.

26. At 7. *a. m.* ſtrong Rain for ½ Hour, after that a little Miſt; Afternoon, from 12. to 15. it rain'd unequally, but the moſt part moderate.

27. Extream hot.

28. About 12. Somewhat Cloudy, at 3. *p. m.* it began to Rain, and laſted about an Hour and ½; after cloudy and ſome Drops; in the Night a Shower or two.

29.

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29. Cloudy. Thence to *May* 6. sometimes cloudy; but for the most part violent hot.

This Month we had Three Funerals; one the 3d of a Fever, another on the 19th of I know not what Pains in the Guts, another 24. of the Flux.

The 15. and some Days following, there settled upon the Castle Walls, certain Swarms of wing'd Ants, a little bigger than Bees; they would bite very severely, and were blown up with Powder.

May, 1687.

Till the 6. as before.

6. In the Morning cloudy, a little after Noon some Wind, followed by gentle Rain, which lasted till 3. *p. m.* after cloudy.

7. Hot. 8. Cloudy about 10. *a. m.* a gentle Shower for ¼ Hour; about 8. *p. m.* a very violent Storm of Wind and Rain, but it quickly grew moderate, and lasted in all not above ½ Hour. 9. Clear.

10 About Noon a violent Shower for ¼ of an Hour; after 8. *p. m.* another as long, but not so violent; past 9. another shorter.

11. Clear. 12. Clear, past 9. *p. m.* a very violent Tornada with Rain, which lasted somewhat more than 2 Hours.

13. Between 12, and 1. in the Night, a short Shower; about 9. *a. m.* some Drops; so also in the Afternoon but nothing considerable; cloudy all Day.

14. Cloudy; at 9. *a. m.* a violent Rain for ¼; after gentle for above an Hour; about 3. *p. m.* some Drops.

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15. About 3. *a. m.* Rain for ½ Hour; between 4, and 5. another; after foggy and cloudy, with some few Drops; about 7. *p. m.* a violent Tornada with Rain for near an Hour.

16. About 4. *a. m.* Rain for an Hour; after 8. for ¼ Hour; after 6. *p. m.* Rain and Wind, but both moderate, for ½ Hour; past 8. about as much.

17. About 4. *a. m.* a short Shower, after clear; 18. clear

19. Cloudy, about 10. *a. m.* some Drops.

20. Cloudy between 8 and 10. *a. m.* a Shower; first violent, after more moderate, till it ended in a kind of Mist; it lasted in all about 1 ½ Hour; the Day after clear, 21, and 22. clear.

23. In the Afternoon cloudy; about 6. *p. m.* some Drops; the Night after, a Shower, not considerable.

24. Hot, about 10. *p. m.* a little Shower.

25. Clear; 26. in the Night some little Rain.

27. Held up; 28. at 9. *p. m.* a short Shower.

29. At 5. *a. m.* Rain till near 7. a little past 7. till 9. after cloudy.

30. Cloudy; the Night after some Rain.

31. About 8. *a. m.* Rain for ½ Hour; from 9. till 12. it rained for the most part very violently; before 1. another Shower for ½ Hour; from a little after 2. till 5. with very great Thunder.

One Funeral on the 25th after but Three Days Sickness, of which I can give no account.

The

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The beginning of this Month, we had an extraordinary Number of Toads, which after some time were not to be seen.

The 14th we had wing'd Ants, as before.

24. Was the first Corn, the Seed-time having been the middle of *March*.

June, 1687.

1. About 4. *a. m.* Rain for an Hour; past 1. *p. m.* for ½ Hour; the rest cloudy and misty.

2. From 2. *a. m.* till 5. continual Rain, 'tis said there was some before; from 9. *a. m.* till ½ Hour past 6. *p. m.* continual Rain, sometimes very fierce; from ½ Hour past 9 at Night, Rain till past 10.

3. From 6. to a little past 7. *a. m.* a very gentle Rain, from thence till 1. *p. m.* most commonly very fierce; thence for a little while more moderate; but it rain'd hard again till 8. *p. m.* then it drop'd but slowly, and so continued till about 7. in the Night some little Rain.

4. About 8. *a. m.* some Drops, thence clear.

6. And 7. clear, except some few flying Clouds.

8. After 3. *a. m.* gentle Rain for near an Hour; then cloudy and some Drops, after 10. *p. m.* a Shower.

9. After gentle Shower, lasted till thence a very violent Rain till almost 9. some Drops after that; about 3. *p. m.* it began and rain'd till past 10. somewhat moderately.

10 Clear and hot.

11. Cloudy; about 8. *p. m.* a few Drops.

12. From about 2. *a. m.* till near 5. Rain, but not violent; a little before 6. a furious Storm of Rain, but little Wind; it laſted till ½ Hour paſt 7. about 3. *p. m.* a moderate Rain, till a little paſt 4. and from thence to 6. ſomewhat more than a Miſt; the Night after it rained a little.

13. Cloudy; in the Afternoon it drop'd a little.

14. About 8. *a. m.* a few Drops.

15. Somewhat cloudy.

16. Extream hot; toward Night cloudy; about 5. *p. m.* a violent Shower for ½ Hour; from a little before 8. till paſt 10. it rained continually.

17. From 4. *a. m.* till almoſt 6. gentle Rain; ſo from a little paſt 6. till paſt 7. thence till paſt 3. *p. m.* cloudy, and now and then ſome Drops; then a violent Shower for ⅛th of an Hour; half an Hour after 4. it rain'd again and continued till paſt 10. for the moſt part very furiouſly; with ſome little Intermiſſion it rain'd all Night.

18. At 3. *a. m.* it rained very fiercely; about ½ Hour after 6. it held up, but cloudy ſtill; from 8. *a. m.* till paſt 3. *p. m.* it rained, but moderately; then it held up a little, but rained after till paſt 6. all Day cloudy, and at Night a great Fog.

19. About 9. *a. m.* ſome very gentle Drops; from 1 till paſt 3. *p. m.* very gentle Drops; from 1

Thence to the Firſt of *July*, foggy, [illegible] ing, ſometimes hot, but for the moſt cloudy, and more temperate than could be expected from the Climate.

Two

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Two Funerals, one the 9th of an Asthma; the other 21. of a Fever.

We saw some Sorts of Insects not usual here, whether monstrous or not, I cannot tell. The most notable, a kind of Spider, about the Bigness of a Beetle, the Form nearest of a Crab-fish, with an odd kind of Orifice visible in the Belly, whence the Web proceeded.

July, 1687.

1. Extream hot.

2. Foggy in the Morning; about 9. *a. m.* a few Drops; after clear.

3. In the Morning a great Fog; about 9. *a. m.* it rained small Rain for near an Hour; toward night more foggy than ever before; about 6. *p. m.* small Rain for a little time; from 8. till past 9. somewhat more brisk Rain, after that it cleared up.

4. From 9. *a. m.* to 3. *p. m.* small Rain, the rest foggy; between 10. and 11. *p. m.* some Rain.

5. From 2. *a. m.* till past 8 constant Rain, sometimes very fierce, sometimes moderate; about 10. *a. m.* some Rain; between 2. and 3. *p. m.* it began to Rain, but continued not long from 8. *p. m.* to 10. Rain.

6. From about 2. *a. m.* to 6. Rain, after fair.

7. Foggy and cloudy; between 7. and 8. *a. m.* some Drops.

8. Foggy in the Morning, otherwise clear and hot.

9. About 1. *a. m.* a smart Shower, between 3. and 5. some more Rain, the time of which

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we know not exactly. The Day after foggy.

10. Very dull and cloudy; from 3ª *p. m.* till Night a very great Mist.

11. Tolerably clear, and very hot, yet somewhat foggy Morning and Evening.

12. Cloudy; thence to 15. in the Morning and Evening foggy; else very hot.

15. Cloudy; about 10. *a. m.* some Drops; from half an Hour past 2. till 4. moderate Rain; about 7. some Drops.

16. Cloudy, several times it drop'd a little but nothing considerable.

17. a little before Day, a short Shower; after cloudy; thence to 20. foggy Morning and Evening, and the most part cloudy.

20. Very clear all Day, and extream hot.

21. Not foggy at all; yet somewhat cloudy, but about Mid-day it cleared up.

22. And 23. very clear and extream hot.

24. Cloudy in the Morning; after as the Two last.

25. Cloudy but not misty nor foggy, sultry hot.

26. In the Morning cloudy, after extream hot.

27. Hot and clear.

28. Thin Clouds, through which the Sun shone very hot.

29. And 30. cloudy.

31. About 3. *a. m.* Two short Storms of Rain, the Day after clear and hot.

Two Funerals, one the 17th drowned; the other 21. of a Fever.

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August, 1687.

To 5. clear, for the most part in the Mornings cloudy; but without Fogs; sometimes very hot.

5. About 5. *a. m.* a Shower near an Hour long, about 7. another for ½ Hour, till 10. some small Rain; thence cloudy till 1. about 7. *p. m.* a few Drops.

6. Cloudy all Day, sometimes it drop'd a little.

7. about 2. *a. m.* violent Rain, with Wind for above ½ Hour. The Day after cloudy.

8, And 9. cloudy and foggy.

10. More foggy than ordinary; about 10. *a. m.* a great Mist, or small Rain for most part of the Day after.

11. Foggy as the former and Misty; between 8, and 9. *a. m.* a Shower of small Rain; after Noon clear.

12. Small Rain in the Morning; after as 11.

13. Clear and hot, the Land Breze very strong.

14. Cloudy all Day, the Land Breze turn'd to a kind of Hermitan, but not troublesom, nor continued beyond this Day.

15. Cloudy, several times very misty, and some small Rain.

16. Cloudy, but no Mist; after Noon clear.

Thence to 22. clear and hot, but the Nights colder than at other times,

22. At 6. *p. m.* cloudy, a Wind Tornada but moderate, with some few Drops of Rain very large.

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23. Clear and hot.

24. Cloudy and misty at first; about 10. *a. m.* clear and hot.

25. Clear and hot.

26. Very foggy, Morning and Evening; for the rest hot.

27. From 5. to 10. *a. m.* it rain'd smartly; thence cloudy, about 2. *p. m.* it clear'd up for a while; about 9. *p. m.* a sharp Rain for ½ Hour.

28. Between 12, and 3. *a. m.* it rained about Two Hours; about 7. some few Drops, after Cloudy, in the middle of the Day, it clear'd a little, but quickly overcast again.

29. In the Night some Rain; at 7. *a. m.* Rain for ½ Hour; till past 12. a very thick Mist; about 3. *p. m.* clear; at Night a very thick Mist.

To the end cloudy and Misty.

Three Funerals, 6. one of a Fever, 7. another of a Consumption, 29. a third of a Fever.

September, 1687.

1. And 2. as the last.

3. Some few Drops.

Thence to 8. cloudy also and misty.

8. About 6. *p. m.* some small Rain; between 8. and 10. *p. m.* for an Hour pretty brisk Rain.

9. In the Morning cloudy and misty.

10. About 10. *p. m.* a little Rain.

11. Extream hot and clear; in the Night, considerable Rain for several Hours.

12.

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12. About 10. *a. m.* ſome ſmall Rain, the Morning very foggy, Afternoon clear.

13. Clear and hot.

14. And 15. In the Morning extream cloudy, and ſome Drops of Rain.

16. Clear and extream Hot.

17. Moderate, about 7. *p. m.* ſome Drops; at Night alſo ſome Rain, not conſiderable.

18. Cloudy; in the Morning about 12. ſome Drops; all this Week, Morning and Evening Foggy and thick.

19, 20, 21. Extream hot, the Fogs ceaſed.

22. About 1. *a. m.* ſome Rain, the Day after cloudy.

23, 24, 25. In the Morning cloudy after very hot.

26. At Night alſo ſomewhat Miſty, with many Flaſhes of Lightning, but no Thunder.

The like Flaſhes moſt Nights to the end of the Month, alſo often cloudy; at other times extream hot.

Two Funerals, one the 19th of a Fever, the other the 26th, whoſe Diſeaſe I do not know.

October, 1687.

1. About 3. *a. m.* a very fierce Rain for near an Hour, but milder toward the end; the Day after ſome flying Clouds.

2. About 4. *a. m.* a little Rain, the Day after as before; from 8. *p. m.* till 10. moderate Rain.

3. Cloudy; about 10 *a. m.* Rain for ſomewhat more than an Hour.

4.

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4. Cloudy between 8, and 10. *p. m.* a very smart Rain for above an Hour.

5. About 9. *a. m.* a little Shower.

6. About 5. *a. m.* a little Shower; another past 6. the Day after, and 7 extream hot.

8. Hot in the Morning; after Noon a shew of a Tornada, with Thunder, and a considerable Wind, but no Rain.

Thence to 16. some flying Clouds, but generally hot.

16. About 4. *p. m.* a little Rain, the Sun shining then, and the whole Day very hot; about 8. *p. m.* a very strong Tornada, Wind and Rain for about ½ Hour, afterward the Rain continued, but more moderate, for near Two Hours.

17. Clear and hot. 18. So too, except that about 3. *p. m.* there was a very short Shower.

19. And 20. somewhat cloudy.

21. About 7. *a. m.* a few Drops, after clear and extream hot, but quickly cloudy again; at 11. *a. m.* a violent Tornada, with very strong Rain and Thunder for near an Hour; thence all the time till Night, thick and misty; till 2. *p. m.* Rain.

22. Cloudy. 23. Clear and hot.

24. Somewhat cloudy; at 7. *p. m.* a little Rain.

25. Cloudy; about 11. *a. m.* Expectation of a Tornada, with some Thunder, but it ended in a few Drops of Rain about 1. *p. m.*

26. Aout 2. *a. m.* a very violent Tornada, and after the Wind, Rain not very fierce, which lasted till 8. *a. m.* the Day after cloudy.

27.

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27. About 10. *p. m.* a violent Wind with Rain, but it laſted not long.

28. About 3. *a. m.* a ſtrong Rain for near an Hour the Day after extream hot.

29, And 30. hot, yet with ſome Clouds.

30. Half an Hour after 11. *p. m.* began a very furious Tornada, the Wind was quickly over, but the Rain laſted with extream violence about Two Hours.

31. In the Morning very hot; about 2. *p. m.* a violent Tornada, with Rain and Thunder very near; it ceaſed ſometimes, but beginning again, laſted till near 4. *p. m.* afterward cloudy.

Three Funerals, all upon the 6th Day, Two of Fevers, the other I know not.

November, 1687.

Clear and extream hot till the 6th.

6. About half an Hour paſt 1. in the Morning a very violent Rain for more than an Hour.

Thence to 14. except that the 11th at Night there were ſome few Drops, very hot.

14. Extream hot, about 9. *p. m.* a little Shower; the ſame Night about 1. a ſmart Rain for an Hour and half.

15. Hot; toward Night Cloudy and Foggy.

Thence to 19. very hot.

19. Some likelihood of a Tornada, but nothing followed.

20. About 1. *p. m.* a ſhort Shower: about a

a quarter past 2. another not much longer; till Night Cloudy.

Thence to 26. no Rain, but cloudy and somewhat cooler; yet some Days extream hot.

26. About 10. *p. m.* a short Shower.

27. About 2. another; the rest clear.

30. About 2. *a. m.* fierce Rain for about ½ Hour.

An

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An Account of the Mooriſh *Way of Dreſſing their Meat (with other Remarks) in* Weſt-Barbary, *from Cape* Spartel *to Cape* de Geer. By Mr. *Jezreel Jones.*

THE *Mauritanian* or *Barbarian Moor*, when he riſes in the Morning, waſhes himſelf all over, and dreſſes, then goes to their *Fiama*, or Church, ſays his Prayers, and returns home, where his Wife, Concubine, or Slave, hath his Breakfaſt provided for him, which is ſometimes made of Barly or Wheat-Gruel; for I have known both. It is made ſomewhat thicker than ours, till it be ropy; they put Origan, and other Herbs, powder'd, into it, which for ſuch uſes they keep dry'd all the Year; ſome will put a little Pepper, and other Spice. I have often been treated with warm Bread, freſh Butter, and Honey, in a Morning, which is not ſeldom uſed among themſelves, an Hour or two after they have had Gruel; as alſo Haſty-Pudding, with Butter, and ſometimes Butter and Honey, (as the Gueſts are, and according to the Ability of the Entertainers.) Some again give *Cuſcuſoo*, with Milk, others with Fleſh, a third with Roots. It is to be obſerved, when any one hath a Gueſt or Gueſts in his

his House, the Neighbours bring their Dish to welcome him or them, on account of the Respect and Love they bear to their Neighbour, as well as to shew their Readiness to entertain the Stranger. This Practice is found constantly used throughout the whole Country among the *Moors*, one towards another, reciprocally. And I have as often found the like Civility, as I had occasion to take up my Lodging at any Place, where I was acquainted with any of the Inhabitants. The *Jews* likewise shew great Civility to any *Christian*, and treat him with what they have, as stew'd or bak'd Hens, Capons, hard Eggs, boil'd or roasted, which they press flat with Pepper, and Salt, Wine, Brandy, *&c.* They have generally the best Bread, and every thing else of the kind that they can get. They put Annis, and two or three other sorts of Seeds, in their Bread; one is black and angled, tasts almost like Carrot-seeds, and I think I have seen these sometimes used in Bread in *Spain*; I know not the Names of the other Seeds in *English*, nor any Language but *Arabick*. They esteem Honey as a wholsome Breakfast, and the most delicious that which is in the Comb, with the young Bees in it, before they come out of their Cases, whilst they still look Milk-white, and resemble (being taken out) Gentles, such as Fishers use: These I have often eat of, but they seem'd insipid to my Palate, and sometimes I found they gave me the Heart-burn.

In *Susa* I had a Bag of Honey brought by a Friend who made a Present of it, as being of great Esteem, and such as they present to

Men

Men of greatest Note among them. This, he told me, I was to eat a little of every Morning, to the quantity of a Walnut; it was thick as *Venice* Treacle, and full of small Seeds. I used to breakfast on it for several Days together, taking the said quantity at a time; it always made me sleepy, but I found my self well, and in very good temper of Body after it. The Seeds were about the bigness of Mustard, and, according to the Description of them to me, and the Effects I found by eating the Honey and them, they must be a large sort of Poppy-seed. The Honey was of that sort they call in *Susa*, *Izacanee*, or *Origanum*, which (the Bees feed on) and these Seeds were mixed with.

Cusous, or *Cuskoo*, is the principal Dish among them, as the *Olla* is in *Spain*: This is made of Flower of Wheat, and when that is scarce, of Barley, Millet, *Indian* Corn, *&c.* They shake some Flower into an earthen Pan, made on Purpose, which is not glazed, sprinkling a little Water on the bottom of the Pan first, and then working it with both their open Hands flat, turning them backwards and forwards to grain it, 'till they make it much resembling *Sago*, which comes from the *East-Indies*. They stew their Flesh keeping their Pots close covered, which are made of Earth, put the *Cuskoo* into an earthen Cullender, which they call *Caskass*, B. *vid.* Fig. and this Cullender into the Mouth of the Pot, C. that so all the Steam which arises from the Meat may be imbibed by the *Cuskoo*, which causes it to swell, and make it fit to be eaten: When it is enough, for they love every thing thoroughly

roughly done, they put this *Cuskſoo* out into the Diſh they ſerve it up in, which is ſomewhat like D. and the *Cuskſoo* being heaped up, they make (as it were) a Bed or Place for the Meat to lie in, then they put good ſtore of Spice, as Ginger, Pepper, Saffron, *&c.* This Diſh is ſet upon a Mat on the Ground, and four Men may eaſily ſit about it, tho' I have ſeen ſix and more at one Diſh; they ſit with their Buttocks upon the Calves of their Legs, with the bottom of their Feet on the Ground. If there are many to eat at this Meal, there are more Diſhes. This Diſh they have in uſe ſometimes at Breakfaſt, as well as Dinner and Supper, but it is commonly uſed for the two laſt Meals. They cover it with a thing made on purpoſe, ſomewhat like E. and it will keep hot enough two Hours. At a ſtately Entertainment they will have a Sheep roaſted whole, ſometimes a half, or a quarter, on a wooden Spit, or the moſt convenient thing they can find. They do not continually keep turning it, as we do, but leiſurely let one ſide be almoſt roaſted before they turn the other. The Fire is commonly of Wood burnt to clear Coal, and made ſo, that the Heat aſcends to the Meat. They baſte it with Oil, and a little Water and Salt incorporated. They let it be thoroughly roaſted; then they ſay, *Biſmiillah*, *In the Name of God*, after they have waſhed their Right Hands, and pulling the Meat in pieces, they fall to eating. It is to be noted, that they never uſe but their Right Hand in eating, and one holds whilſt the other pulls it aſunder, diſtributing the pieces to the reſt, as he pulls it off,

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off. They seldom use a Knife, and a Fork is a strange thing among them. They are dextrous at this way of carving, and never flinch at the Heat or warmth, for that would look mean, and might occasion one more bold to take his Office upon him to perform. When they have done, they lick their Fingers, and as often as they have a hot Dish, they wash their Hands afresh. Then they have *Alfdoush*, or *Virmizzelli*, with some Meat on it, stew'd Meat, well spiced, with savoury Broth; which after they have eat the Meat, they dip their Bread in the Sauce, or Broth, and eat it. They are cleanly in their Cookery, and if a Hair be found it is a capital Crime, but a Fly not, because it has Wings, and may get in after it passes from the Cook's Charge or Management; to be well and strongly season'd is no great Fault; and if one should say it is too high of Pepper, they'll reply, it is better to be *Ah* than *Faugh*; alluding to the Differences between a strong, high, or hot, and savoury Taste, and an insipid, watry, or unpleasant. *Cubbob* is small pieces of Mutton, with the Cawl of a Sheep wrapped on them. Some make good *Cubbob* of the Liver, Lights, and Heart. They Pepper and Salt them, and put Sweet Herbs and Saffron into them, and then roast them, and when they dish them up, squeeze an Orange or two on them. Thus they use commonly in their stew'd Meats, Lemon and Orange for Roast or Fish.

Elmorosin is another: This is pieces of Beef, of Cow or Camel, stew'd with Butter, Honey, and Water; some will put *Rob* of Wine among

it; they add Saffron, Garlick, or Onions, a little Salt, and when 'tis enough, ſerve it up. They eſteem this a delicious Diſh, uſed moſtly in the Winter, and ſay it is good againſt Colds, notwithſtanding they ſay Beef is cooler than Mutton. They have a piece of good Houſewifry for a ready Diſh, which is likewiſe appropriated to the Winter Seaſon; and this I will give an Account of before I have done. Then they will treat you with Hare ſtew'd, ſtew'd and roaſted Hens and Partridges: Theſe they disjoint, and let ſtew in Water, and Oil, or Butter, if they are not fat enough of themſelves. When they are almoſt enough, they beat a couple of Eggs, mix them with the Liquor, with Juice of Lemon or Vinegar, which they uſually have very good, and ſerve it up.

Then you may have more baked and roaſt, and another Diſh of ſtew'd Meat, which for its Goodneſs would be eſteem'd among us: They take a Leg of Mutton, cut off the fleſhy part, leave out the Skin and Sinews. This Fleſh they mince very fine (with two Knives, one in each Hand) by holding them acroſs, which they manage with great Dexterity; they alſo mince ſome Suet, Parſly, Thime, Mint, *&c.* Then they take Pepper, Salt, and Saffron beaten together, and ſome Nutmeg; all theſe they add to the reſt, with about half a handful of Rice; they cut an Onion, of the beſt ſort, half through, and take off the firſt Lay, as not ſo fit for uſe, unleſs it be thick. (They that are curious take out the inner Skin, ſaying it is not wholſome, and bad for the Eyes, it being the

the worst thing in an Onion, which otherwise would be the best of Roots.) This Lay they fill with forc'd Meat, then the next, and so on, which makes them look like so many Onions; some they put up in Vine-leaves of the best they can find for their purpose. Whilst this is doing, the Bones and Residue of the Leg of Mutton, being in moderate pieces, are stewing, with as much Water as will just cover them; then they put on their forc'd Meat-Balls a top of the Meat, and a green Bunch of Grapes upon them, cover it, and let it boil till thoroughly enough. This I think, is one of their best Dishes, which they often use in *Fes* and other Cities *Pillowe*, or *Piloe*, is a Dish very well known, made with Rice boil'd, with a good Hen, Mutton, and Spice, the Flesh and Fowl being put on the Rice in a Dish as *Cuskusoo*, and so served up.

A Bustard, which they roast and stew, and make an excellent Dish of its Guts, I eat of it once; to me it seemed very pleasant and savoury, and very grateful to the Stomach. This Bird is fit for their King's Table, as likewise the Hedge-hog, of which I will give an Account anon. Then they have *Ragous*, made with Sparrows, Pidgeons, *&c.*

Their Drink is plain Water, or Milk, and sometimes *Rob* of Wine mixed with Water. I was once treated with this by the Bashaw of *Susa*, *Abdolmelek ben Alchotib*, and there was brought to me a great Bowl which held above three Quarts; he told me there was not above half a Pint of this *Rob* in it, and the rest was filled up with Water. It was very generous

and pleaſant, and tho' I did not drink a quarter of it, yet I found the Strength in half an Hour. This they ſay is a Remedy againſt Cold likewiſe, and pretend to take it medicinally; tho' *Rob* of Grapes is lawful according to their * Law. Under this Pretext, many *Feſſee* Merchants, to make *Rob*, or Vinegar, preſs all the Grapes in their Vineyards, put it up in great Jars, under Ground, and keep it long, ſo that it proves excellent Wine. When four or five merry Companions, with every one his Miſtreſs, appoint to be merry, they go out to their Vineyard or Garden, have Muſick, and all or moſt of theſe Diſhes, and there ſit and carouſe over a great earthen Bowl full of Wine, of about four or five Gallons, and ſo drink round in a Cup that will hold almoſt a Pint, like a large Tea Diſh, till there is none left; it often happens that they do not part till they have made an end of the whole Jar, which ſeldom is leſs than a Weeks time. I have known ſome that have been nine Days ſucceſſively drunk; thoſe that are known to drink Wine or Piſs ſtanding, their Teſtimony will not be valid in Law.

* *Alcoran*

In a Morning, during this time of Merriment, they are for ſome ſavoury Bit, *Pickled Fiſh*, or *Eſcaveche*, or *Elcholle*. They are great Lovers of Fiſh, and have as great Variety and very good, which they fry in *Organ Oil*, ſtew, roaſt, and bake, with good ſtore of Spice, Onions, Garlick, Cummin, Parſly, and Coriander. The *Eſcaveche*, or fry'd Fiſh, is cut in thin ſlices, and put into Vinegar, with the aforeſaid Spices, adding Saffron, and

and Pepper, *&c.* It will keep above a Month, and this they have commonly, as alſo pickled Limes, Olives, Capers, *&c.* They eat parched *Garavancas*, parched Almonds, and Beans, which they parch in a Pan with Water and Salt. Theſe, and other things, they have to reliſh their Glaſs of Wine, or give them a freſh Appetite to drink. They ſay, to cure the ill Effects of a drunken Bout, is, to take a ſwinging Cup of the ſame Liquor, which invites them to more, and ſo on.

But I have left ſome Diſhes, by this Digreſſion, to give an Account of their extravagant Mirth.

The Hedgehog is a princely Diſh among them, and before they kill him rub his Back againſt the Ground, by holding its Feet betwixt two, as Men do a Saw that ſaws Stones, till it has done Squeaking; then they cut its Throat, and with a Knife cut off all its Spines and ſinge it. They take out its Guts, ſtuff the Body with ſome Rice, ſweet Herbs, Garavancas, Spice, and Onions; they put ſome Butter and Garavancas into the Water they ſtew it in, and let it ſtew in a little Pot, cloſe ſtopped, till it is enough, and it proves an excellent Diſh. The *Moors* do not care to kill Lamb, Veal, nor Kid, ſaying it is a Pity to part the Suckling from its Dam. They eat with their boil'd Meat, many times Carrots, Turnips of two or three ſorts, Cabbage, Beans, and Peaſe, *&c.* which they have plenty, and very good. I have eat of Porcupine ſtewed, which much reſembled Camels Fleſh in Taſt, and that is the neareſt to Beef of any thing I know.

I come now to give an Account of the *Alcholea*: It is made of Beef, Mutton, or Camel's Flesh, but chiefly Beef, which they cut all in long slices, salt it well, and let it lie twenty four Hours in the Pickle. Then they remove out of those Tubs, or Jars, into others with Water, and when it has lain a Night, they take it out, and put it on Roaps in the Sun and Air to dry; when it is thoroughly dri'd, and hard, they cut it into pieces of two or three Inches long, and throw it into a Pan, or Chauldron, which is ready, with boiling Oil and Suet sufficient to hold it, where it boils till it be very clear and red, if one cuts it, which, taken out, they set to drain: When all is thus done, it stands till cool, and Jars are prepared to pot it up in, pouring the Liquor they fried it in upon it, and as soon as it is thoroughly cold they stop it up close. It will keep two Years, it will be hard, and the hardest they look on to be best done. This they dish up cold, sometimes fry'd with Eggs and Garlick, sometimes stew'd, and Lemon squeezed on it. It is very good any way, either hot or cold.

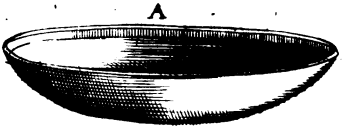
Before I conclude, I willingly give an Account of their Travelling-Provision, *viz.* Bread, Almonds, Raisons, Figs, hard Eggs, cold Fowl, *&c.* But what is most used by Travellers, is *Zumeet*, *Tumeet*, or Flower of parched Barley for *Limereece*. These are not *Arabian* but *Shilha* Names, so I believe it is of a longer standing than the *Mahometans* in that Part of *Africk*. They are all three made of parched Barley Flower, which they carry

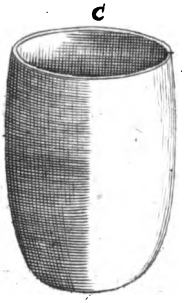
carry in a Leather Satchel. *Zumeet* is the Flower mixed with Honey, Butter, and Spice; *Tumeet* is the same Flower done up with *Organ Oil*; and *Limeraee* is only mixed with Water, and so drank: This quenches Thirst much better than Water alone, satisfies a hungry Appetite, cools and refreshes tired and weary'd Spirits, overcoming those ill Effects a hot Sun and fatiguing Journey might occasion. This among the Mountaineers of *Suse* is used for their Diet as well at home as on their Journey. All things taken in Game, as Hawking, Hunting, and Fowling, are lawful for them to eat, if they take it before it be dead, so that they can have time to cut its Throat, and say, *Bismillahe*; or if he is known to be an expert Man at the Game, and says those Words before he lets the Hawk take its Flight, lets slip the Grey-hound, or fires his Gun, it is lawful; all (I say, but Swine's Flesh, and what dies of its self) they have Liberty to eat, and may sell it. They tell us there is but one Part about the Hog or Swine that is unlawful, which they do not know, and are obliged to abstain from the whole; but if they knew it, they would let us have but little to our share. They eat Snails boil'd with Salt, and praise their Wholsomness. Fish of all sorts, are lawful. In *Taffilet* and *Dra* most of their Food is Dates, there are ten or a dozen sorts. They have good Capons all the Country over; no Turkeys, Ducks, nor Geese but wild, and those they have of two sorts; Duck, Teal, and Mallard, Corlews, Plovers, Snipes, Oxbirds, Pipers, a sort of a black Crow, with

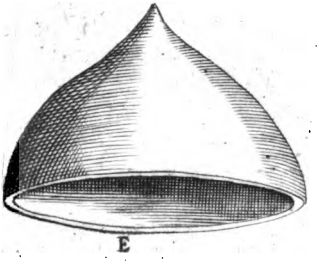
a bald Pate, and long crooked Bill, is good Meat, and a hundred other sort of Fowl. I have eat Antelope, which we have kill'd in hunting, and are very good Food. They are as large as a Goat, of a Chesnut Colour, and white under the Belly; their Horns are almost quite streight from their Head up, tapering gradually, with Rings at a distance from one another, till within an Inch and a half of the top; fine large black Eyes, long and slender Neck, Feet, Legs, and Body, shaped somewhat like a Deer; they have two Cavities between their Legs, I think the Male as well as the Female. I have sent of these Antelopes alive to *England*. There are many in a Herd, when at the same time they have Scouts, or those who by running give 'em notice of an approaching Foe. When two lie down together, they lay themselves so, that their Backs are towards each other, and the Head of one towards the Tail of the other, that they may see every way. Their Dung is sweet and pleasant enough. They are taken sometimes by the Hawk, sometimes by the Shot; for they are too swift for a Grey-hound. Partridges in *Sus* commonly roost on Trees; there are so many Foxes which would otherwise destroy them.

And here I should make mention of another Dish: The *Moors* will eat Fox, if it be Fat, either stewed or roasted, but they do not care for it lean, which has occasioned a Proverb among them on that Account, to wit, *Hellel deeb, harom deeb*; alluding to the Scruple might be made of its lawfulness. Those Words signifie, a Fox is lawful, and a Fox is unlawful; *i. e.* Fat, Lawful; Lean, Unlawful.

Fruits







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Fruits and Sweat-Meats they have of many kinds, as of three or four ſorts of Pumpkins, Macaroons, Almonds prepared many ways, Raiſins, Dates, Figs dry and green, excellent Melons of two or three ſorts, and Water-Melons, Pomgranates of ſeveral kinds, Apples, Pears, Apricocks, Peaches, Mulberries white and black, Plumbs, and Damaſcens, Cherries, * Grapes of many kinds, and very good, and if they would aſſiſt Nature, they might have every thing in Perfection.

Lat. 30, or thereabouts.

* Grapes in *Meſſia* I have known as big as a Pigeon's Egg; but they do not make Wine.

Their Salating is Lettuce, Endive, Carduus, Parſley, Apium, and other ſweet Herbs, Onions, Cucumbers of ſeveral kinds, ſome about a Yard in length, and two or three inches thick, and hairy, (this is eſteemed the wholſomeſt) Radiſhes, *Fumatas*, or Apples of Love, all which they will cut, and put Oil, Vinegar, and Salt, with ſome red Pepper: This Salate they eat with Bread. They have a Fruit called *Baraneen*, in *Spain*, *Baragenas*; theſe they ſtew with their Victuals, and ſometimes cut them in thin ſlices, and fry them; it makes a pretty Diſh. When the *Moors* have feaſted, every one waſhes his Hands and Mouth, thanks God, and bleſſes the Hoſts and Entertainers from whom they had it; they talk a little, or tell ſome Story, and then lie down to reſt, where I ſhall leave them at preſent, and do beg your Pardon for ſo tireſome and frivilous a Diſcourſe.

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A Letter from Mr. John Monro *to the Publiſher, concerning the Catacombs of* Rome *and* Naples.

SIR,

THE Catacombs are an obſcure Argument. I have ſeen thoſe of *Rome*, I have ſeen thoſe of *Naples*, and as they ſay there are Catacombs in the Neighbourhood of all the great Towns of that part of *Italy*, I had been glad to have ſeen them whereever they are. They are an obſcure argument indeed; but perhaps the greateſt obſcurity about them is, that a Matter that has ſo much exercis'd the Pens of the Moderns, ſhou'd be totally neglected by the Ancients: Neither the name nor the thing is found in the latter, whereas among the former, Antiquaries and Travellers are full of them. All they into whoſe way they come, think they do nothing if they do not exhauſt them before they leave them; they take all their dimenſions, and meaſure their height, their breadth and their length; they ſurvey all the little Rooms, ſearch every hole and corner, Criticize nicely on the quality, and calculate the Age of the poor Painting and Inſcriptions, and make excurſions into other Arguments, to find out the end for which they were

were made. The Catacombs are a narrow Gallery dug and carried a vast way under Ground, with an infinite number of others going off it on all hands, and an infinite number of little Rooms going off the Principal, and them too. Those commonly shew'd Strangers are those of *San Sebastiano*, those of *San Lorenzo*, those of *San Agnese*, and the others in the Fields a little off of *Sant Agnese*. They take their Names from the Churches in their Neighbourhood, and seem to divide the circumference of the City without the Walls between them, extending their Galleries every where under, and a vast way from it, so that all the Ground under, and for many Miles about it, is said to be hollow. Now there are two sorts of Authors that run into extravagance on this subject; the one will have them made by the Primitive Christians, adding, that in the times of Persecution they liv'd, held their Assembleis, and laid up the Bodies of their Martyrs and Confessors in them. This is the Account that prevails at *Rome*, and consequent to it there are Men kept constantly at Work in them. As soon as these Labourers discover a Repository, with any of the marks of a Saint about it, Intimation is given to the Cardinal Treasurer, who immediately sends Men of Probity and Reputation to the place, where they find a Palm painted or ingraven, or the Cypher XP, which is commonly read *pro Christo*, or a small round projection in the side of the Gallery, a little below the Repository; what is within it is carried to the Palace. Many of

these

theſe Projections we have ſeen open, with pieces of the Vials in them; the Glaſs indeed was tinctur'd, and 'tis pretended that in theſe Vials was conſerved the Blood of the Martyrs, which was thus laid up nigh their Bodies, towards the Head, to diſtinguiſh them from thoſe of the others that were not called to the Honour of laying down their Lives for the Faith of the Goſpel. After the Labourers have ſurvey'd a Gallery, they do up the entry that leads into it; thus moſt of them are ſhut; nor are more left open than what is neceſſary to keep up the Trade of ſhewing them to Strangers, which they ſay is done to prevent what has often happen'd, I mean Peoples loſing themſelves in theſe ſubterraneous Labyrinths; by this conduct depriving us of the means of knowing whither and how far they were carried. To this it may be juſtly excepted, that allowing the Catacombs to be proper for the end for which they are preſum'd to be made, and that the Chriſtians of that Age were in a capacity of making that convenience, for themſelves to live and aſſemble in below Ground, at a time when 'twas ſo very unſafe to appear above it; yet to ſuppoſe that a work of that Vaſtneſs and Importance cou'd be carried on without the knowledge of the Government, is to ſuppoſe the Government aſleep, and that that was actually done under its Noſe, that muſt neceſſarily have alarm'd it, had it been attempted on the frontiers of the Empire.

The other ſort of Authors give indeed a mighty Idea of the Catacombs, repreſent them

them as a work of that Vaſtneſs, that the Chriſtians in the perſecuting times had not number enough to carry it on; but then moſt unadviſedly with the ſame breath they confound them with the *Puticuli in Feſtus Pompeius*, where, at the ſame time that the Ancient *Romans* us'd to burn the Bodies of their dead, the cuſtom was, to avoid expence, to throw thoſe of the Slaves to rot.

This is not all, the *Roman* Chriſtians, ſay they, obſerving at length the great veneration that certain Places gain'd by the preſence of Relicts, reſolv'd to provide a ſtock for themſelves; entring therefore the Catacombs, they made in ſome of them what Cyphers, what Inſcriptions, what Painting they thought fit, and then ſhut them up; intending to open them again upon a Dream, or ſome other important incident. The few that were in the ſecret of this Artifice either dying, or as the Monks, who were the only Men that ſeem to have had Heads adapted to a thought of this quality, were ſubject to ſo many removes, being tranſported to other Places, the contrivance came to be forgot, and thoſe Galleries continu'd ſhut, till Chance, the Parent often of great diſcoveries, open'd them at laſt. Thus they conclude, the Remains of the vileſt part of Mankind are trump'd up in the Church for the Bodies of the moſt eminent Confeſſors and Martyrs.

To leave the latter part of this Tale to ſhift for it ſelf as well as it can, either the Catacombs are not that great work they are repreſented to be, nor to be found every where about the City, or 'twas very improper in

Feſtus

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Festus Pompeius to call them by the little name of *Puticuli*, and so confine them to one place only, that I mean unknown now without the *Esquilin*-Gate. Indeed the Characters of the Places are so very unlike, that one wou'd wonder how a common Burying place, where in holes Bodies were thrown together to rot, came to be confounded with Repositories cut in the face of a long Gallery, one over another, sometimes to the number of seven, in which Bodies were singly laid, and handsomly done up again, so that nothing cou'd offend the view of those that went in, especially with the little Rooms of the fashion of Chappels, that have all the Appearances of being the Sepulchers of People of distinction.

The Remark, *Puticulos Antiquissimum sepulturæ genus appellatos, quod ibi in puteis sepirentur homines*, is that of an Etymologist, that would be now thought to speak against all the property of Language, if he apply'd the name to our Graves or Vaults, to which it may with more Justice and Reason be apply'd, than to the Galleries of the Catacombs, and the Rooms that go off them. What the particulars were is not difficult to define, after what we have seen so often. When the Persecutors spilt the Blood of so many Martyrs, they us'd to dig holes perpendicularly in the Ground, and to throw their Bodies promiscuously in them; of this the Memory is still conserv'd, Churches being built in the Places where the holes were made, and little Monuments erected over the holes themselves, to which the name of *Putei* is continued to this day.

This

This is the true notion of the *Puticuli*, holes dug perpendicularly in the Ground to throw Bodies indifferently and without any decency in; and according to the Argument this ought to be the conduct of the Ancient *Romans*, with Respect to their Slaves, as implying simplicity and the care to avoid a greater expence; but then what's all this to the Galleries and Chambers of the Catacombs, where decency and distinction of quality is nicely observ'd; and that, if they were look'd after, and kept in better repair, would be without dispute the noblest Burying-place this Day in the World? As often as they fall under my consideration, I cannot forbear thinking they were made for this end by the Ancient *Romans*, and made in consequence of these two Ancient opinions, that the shadows hate the light, and love to hover about the place where the Bodies are laid, they appear so easie and decent a resting-place for the one, without the least fear of being ever disturb'd, and at the same time there is provided a noble and a vast convenience full of variety for the others, to space themselves freely and with pleasure in.

I think 'twill not be denied, that laying up the Bodies in Caves was the original way of disposing of the dead; this was that of the *Phenicians*, and as they were the Men that with their Colonies peopled the Western parts of the World, 'tis more than probable they carried it along with them whither soever they went. Afterwards, as Men grew great and powerful, they erected noble and magnificent Monuments for themselves above ground;

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ground; at length others of inferiour degree imitated them, all leaving room enough and excluding the light: But then interring as we do now in the open Air, or in Temples, was never the manner till Christianity brought it in. Of the whole we have many Instances, and *Il Signior Abbate Bencini*, Bibliothecary of the *Propaganda*, a Gentleman of good Ancient Learning, assured me in the conversation I had with him on this Argument, that on the great Roads in most parts of *Italy* little Catacombs have been and are still found under ground, and that 'twas the Custom to build little Houses over them. This, and the testimony of the Labourers whom I consulted on the matter, made me abandon an opinion of which I was once fond, that the Catacombs are of the Nature of our Gravel-pits, as old as the City itself, and yet out of them was taken the *Puzzolana*, the famous Ingredient in the *Roman* Mortar. The same learned Gentleman added, relating to the marks of a Martyr, that they don't conclude much; that the so fam'd Cypher XP was in use among the Ancients long before Christianity begun: And when I ask'd him what the meaning of it might be among them? return'd, that 'twas compos'd of the two *Greek* Letters X P, under which something mystical was comprehended, but that he met with no Author that gave account what the mystery was.

Thus, after a multitude of thoughts about the Catacombs, I'm forced to take up with this; so natural it is, arising from the sole Theory of the Place, and falls in so oppositely with

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with the Religion and Practice of the Ancients, among whom the *Dii Manes* were the Tutelary Gods of the Country, and *D. M.* at the head of an Inscription, argues the Moles, the Sepulchre, the Monument, *&c.* was in the primary intention made for and dedicated to the Soul. Upon the same Maxims, in Foreign expeditions, when a Hero died or was kill'd, as the Body was liable to a quick corruption, and for that Reason unfit to be transported entire, they fell on the expedient of Burning, in order to bring home the Ashes, to oblige the *Manes* to follow, that so the Country might not be deprived of the Benefit of its tutelage. This I humbly conceive was the Original of Burning, which by Degrees became more and more universal, till at last the Pomp and Magnificence of it reconcil'd it to all that were able to go to the length of the expence.

As for the prejudice of the Silence of the Ancient Authors in this matter, 'tis easily removed, and to be regreted at the same time that the Authors of all Ages, too much neglect the customs of their own time. Writing for the satisfaction of their Cotemporaries, they think it impertinent to Trouble them with the Account of what they see Transacted every Day. By this means the Ancient Customs, with the Time, and Reasons of their disuse, are lost with Respect to us, and ours with the same Circumstances may come to be so with relation to Posterity. As the Authors are pleas'd to adopt them for their Children, one wou'd wonder greater care is not taken not to entail visible occasions of

complaint on them; nay, one wou'd wonder more, to ſee theſe Gentleman ſo little ambitious of a future reputation, when they may infallibly aſſure it themſelves, without reſigning the preſent, by tranſmitting the knowledge of things, the knowledge of which may in a ſmall ſeries of Years become otherwiſe irretrievable; they cannot but obſerve every Day what eſteem is placed on thoſe Authors, to whom we are forced to go, to find in them what cannot be found elſewhere, to compare with the others, in whom nothing is to be found, but what Men of Reaſon are able to find at home.

Upon the whole, the Catacombs I humbly conceive were the Burying-places of the Ancient *Romans*; at length the manner of Burning, which they received from the *Grecians*, coming by degrees to prevail univerſally, they fell under a total neglect. This is the State in which the Primitive Chriſtians muſt be ſuppos'd to have found them; 'tis not to be imagin'd they could have made any uſe of them, at a time when 'twas the daily practice to lay up even the depoſitions of the Slaves in them; ſo that either the Chriſtians made no uſe of them at all, or they never were the burying Place of the Slaves. Now as theſe are Suppoſitions that naturally deſtroy one another, one would count it more ſafe to follow the faint light of a glimering tradition, than abandon ones ſelf to the Conduct of an *Ignis fatuus*, that for ought a Man knows is actually miſleading him, ſo I beg leave to call the Teſtimony of *Feſtus Pompeius*, that may rather be apply'd to any other thing than

than to the Galleries of the Catacombs, carry'd under ground, they say 20 Miles from the City in some places, and no Body knows how far in others, and to that vast number of Chambers that go off them. Thus therefore the Christians finding them in a state of neglect laid up the Bodies of their Dead in them; and perhaps when the Persecution was hot, conceal'd themselves and kept little separate Assemblies in their Chambers. At last the Empire turning Christians, they fell again in the old state of neglect, in which they continu'd till upon the reading of I have forgot what Author that makes mention of them, they came to be look'd into and search'd. What I have writ relates to the Catacombs of *Rome*, those of *Naples* are a quite other thing, of which *per* next. I am,

Sir,

Your most humble Servant,

Marseilles, Aug. 22. 1700.

J. Monro.

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An accurate Deſcription of the Lake of Geneva, *not long ſince made by a Perſon that had viſited it divers times in the pleaſanteſt ſeaſon of the Year; and communicated to the Publiſher by one of his Pariſian Correſpondents: Engliſh'd as followeth.*

YOU have reaſon, *Sir*, to demand of me an Account of the *Lake of Geneva*, which, in my opinion, about this Seaſon of the Year (in *June*) is one of the moſt pleaſant Places of the World. This is the Third time I have viſited it, and I am, if I may ſay ſo, more charmed with it than the firſt.

I ſhall ſay nothing of the *Alpes*, nor of mount *Jura*, which do environ it, which by this Lake as by a large Ditch, are ſeparated from one another: For that would not give you a ſufficiently fair *Idea* of the Country. Be pleaſed therefore to repreſent unto your ſelf a Croiſſant of Water, one extremity whereof is Eighteen Leagues diſtant from the other, and the Banks of which are gently raiſed to ſome heights, then to collines, and at length to ſtupendious Mountains; which yet are not ſo linked to one another but that

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that they leave betwixt them interſtices of Fifteen or Twenty Leagues proſpects, checkered by Meadows, Corn-Fields, Orchards, Vines, Forreſts of Fir-Trees, Snow lying on the ſides of the Rocks. All theſe Objects, which at a diſtance are confounded, and ſeem to make but one, have near hand their ſeveral Beauties: So well is the Country interſected by Rivolets, which, after they have ſerved to make Iron, Paper, &c; run into the Lake, carrying with them very many Fountains.

But leaving theſe Things, I ſhall now content my ſelf to entertain your Curioſity by giving you a candid Relation of what I have there obſerved in the ſpace of Four Months.

Although I have told you, that this Lake hath the figure of a *Croiſſant*, yet that point, where is *Geneva*, is ſomewhat longer and more extended than the other. This Croiſſant where 'tis largeſt, which is from *Morges* to *Thonon*, is about Five good Leagues over. That which hinders from making an exact eſtimate of its Largeneſs in other places, is, that the Winds by driving the Water toward the Banks have made certain points, which advance far into the Lake, in ſuch ſort that when one happens to be oppoſite to the other, the Lake ſeems to be narrow: As may be obſerved in going from *Geneva* to *Nion*, where it ſeems as if the *Pharus* or watch Tower of *Prangin*, which is in *Suiſſe*, did almoſt touch *Savoy*; whereas yet one is a League diſtant from the other. And, what is remarkable, is, that at the coming out of

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this Streight, the Lake hath there almoſt its greateſt breadth and depth.

The Water of this Lake is very good to drink, and ever ſo limpid, that even in the roling of the Waves, which ſometimes go high enough, the Water is not troubled but along the Banks. And if one do attentively look down from the Caſtle of *Chilon* or from any of the neighbouring heights into the bottom of the Lake, he may ſee high Mountains under the Water. And the Water is ſo Deep before *Veuvay*, that the ſounding Line at the end of four hundred Fathoms ſeems, becauſe it will not ſtay, to Touch upon ſomething ſlippery. 'Tis held to be 500 Fathoms deep before *Roole*; and 'tis affirm'd, that near this great Depth there may be ſeen a kind of *Iſle* under Water.

The *Rhone* enters at one of the Points of the Croiſſant into the Lake, and iſſueth out at the other; but with this Difference, that whereas he comes in Dirty and Miry, he ever goes out ſo Pure and Clear, that under the Bridge of *Geneva*, where the Water is deep twenty five Feet in Summer, you may well diſcern the ſmalleſt Stones at the bottom. And the ſame Water, which in this Place appears of a Saphyring Blew in the ſhade of the Houſes, appears altogether Green, nor is ſo Tranſparent, when the Sun ſhines on it.

There is a great diverſity of Opinions as to the *Current* of the *Rhone* in the Lake; ſome maintaining, that *it* may be diſcerned, others denying it. Having heard the Sentiments of the Curious of *Lauſanne* and *Geneva*, and the Opinions of the moſt knowing Fiſher-

men

men that are there in great Number, and eſpecially at *Coupet*, I believe with the latter; that, although the *Rhone* entring into the Lake loſeth its Violence, yet doth he ſtill keep ſome ſenſible Motion in ſome places, and every were obſervable, and that no Trouts are taken any were in this Lake, but in this Current of the *Rhone*; which is what theſe Fiſhermen call, to go and Fiſh *ſur le mont*.

Others there are, that go further and ſay, that one may every where diſtinguiſh the Water of the Lake from that of the *Rhone*: But the Fiſhermen will not allow this, but aſſert, that there is no other Mark than thoſe lately alledged, *viz.* of the Trouts, and the Current; and that the latter of theſe is alone ſufficient, in calm Weather, to obſerve the Current of the *Rhone* from the place of his entring the Lake unto that of his going out.

The Water of this Lake commonly begins to Increaſe about the end of *January*, or the beginning of *February*, and continues to do ſo unto the twentieth of *July*, and often unto the very Month of *Auguſt*; and then it inſenſibly decreaſeth, ſo that the Water is leſs high in Winter than Summer by twelve or fifteen Feet; the Froſts draining the Springs, or rather Freezing the Waters that iſſue out of them.

About this Increaſe of the Water there are alſo different Opinions. 'Tis true, they all believe in general, that the principal cauſe of the Increaſe of the Water is the melting of the Snow, and of the Mountanous Ice, that is in the Winter form'd of

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the Waters of the Springs and Torrents, which the Frost fixeth. This is so true, that when there is much Snow in Winter, the Waters are very high the ensuing Summer. But when great Rains chance to fall in *January*, then the Snow, not yet being well hardned, melteth on a sudden altogether. And when this melting is not so violent, all the Snow that will melt, melts at the end of *May* or at the beginning of *June*; so that, there remaining but the stock of Ice for entertaining the Increase of the Water unto the Month of *August*, some have thence been induced to say, that this Increase, which amounts, as has been said, to 15 Feet Water generally all over the Lake, is caused by the Herbs, growing, as they pretend, at its bottom in great abundance; and that these Herbs, whilst growing, do force the Water upwards, and dying in Autumn make the Water to sink lower. Which is not satisfactory to me, because there are no Herbs seen upon the Lake, and very little within it, and the Banks being very dry.

Others there are, that will have this Water rarified by the Heat of the Sun, and thereupon swell'd on the Borders, hot Water not being so high in the middle as cold.

This is certain, that all the Rivers and Torrents, that fall into this Lake, carry with them store of Stones and Earth, which may indeed enlarge and raise it: But such an aurmentation or rise cannot be sensible but from Age to Age; not to mention, that in Winter, whilst the Water is low, the Stones of the Lakes are carried away for building or fortifying at *Geneva*.

At

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At the issuing out of the Barres, that form *Geneva*, on the side of the Lake, are seen in the Water two or three huge Flints, standing out of the Water; the chief of which they call *Niton*: And the Tradition is, that it formerly was an Altar consecrated to *Neptune*; there being also a place cut out in the middle, which they take to have been the place for the Sacrifice. On this Flint seven or eight Persons can sit; and sometimes, when the Waters are very low, there are found about it Knives, and Needles as thick as Bodkins of tweeses, and much longer; both of Brass, well enough made, and esteemed to have served for the Sacrifices.

This Lake in serene and calm Weather appears sometimes, and that even before Sunrising, as if it were made of divers pieces, differently coloured; part of it being Browner than the rest, which seems to be caused by a Breath of Wind passing thorough the Water, coming either from the bottom of the Lake, or from above; tho' others think this gentle agitation to proceed from some Springs that are at the bottom, making the Water shiver above. But that part of the Water, that is not moved, appears as even and smooth as a Looking-Glass, or like Water traced by a Ship. And as for the Colours, they are, in my Opinion, an effect of the neighbouring Mountains, the different Images of which, being confounded in the Water, make an appearance of very pale Colours.

After that the *Rhone* is entred into the Lake, he retakes not his impetuous course before a quarter of a Mile's distance from its coming

coming forth again, that is, above *Geneva*. And the nearer he comes to that Town, the more his Bed becomes narrow, and conſequently his courſe more Rapid. Yet this Rapidneſs hath been in our times once ſurmounted by Wind, and once by Water. To underſtand which, you may imagine, that in *Geneva* there is a ſtreak of Land about an hundred Fathoms long, which divides the *Rhone* into two parts, paſſing under four Bridges, then covered with Houſes. From the Point of this Iſle unto ſeveral ranks of Stakes on that ſide of the Town, there are about a Thouſand common Paces. This whole ſpace of Water, which makes the figure of an V (whereof the Iſle is the Point, and the Town forms the ſides, and the Stakes the empty place of the end) hath been once laid dry by a violent Wind, after this manner. One Day in the Winter of the Year 1645. there aroſe in the Morning about 9 a clock ſo furious a Wind, that not only it uncovered the Houſes, but alſo laid dry the Bed of the *Rhone* above the Bridges, ſo that many, in the view of all the Town croſſed quite over it dry-foot, and one of the Sons of M. *D. Aubigny* took up ſome Medals, which he found in his way. This paſſage was free during an Hours time; at the end of which the Rivers retook its courſe. At that Seaſon the Water being very low, and a Weſt-Wind, to arrive at *Geneva*, being preſſed by the high Mountains that bring it upon the Town as by the noſe of a pair of Bellows; it came to paſs, that that Wind did violently bear upon the Water near the ſaid

Bars

Bars keeping suspended the Water that was beyond, and those Waters, that were beneath, running away downwards by a declivity, and under the shelter of the Houses. Whilst I was scrupling at this Relation, they brought me *Gallasius* his Commentary upon *Exodus*, Printed 1560. where 'tis recorded, that the like accident had fain out at *Geneva* at the time when that Minister lived there, a South West Wind having made the *Rhone* to recoile into the Lake, and many People having thereupon passed over dry for an Hours time.

Concerning the other Accident; you may remember, that the River *Arve*, which is a kind of Torrent falls into the *Rhone*, about a 1000 Paces beneath *Geneva*. In the Month of *December* in the Year 2652. the said *Arve* did so extraordinarily swell, that not only it over-run its Banks with impetuosity, but also interrupted the course of the *Rhone*, and forc'd it to re-enter into the Lake for the space of fourteen hours; though some do esteem, that the *Arve* dis-gorged it self for that time into the Lake, by passing *over* the Water of the *Rhone*, which, in their Opinion, continued his course under the Water of the *Arve*. However the Water was seen at *Geneva* to re-enter into the Lake.

But to conclude, this Lake doth very much abound in Fish; but that which is observable is, that those Fishes have as 'twere cantonized themselves, and divided the Lake among them. The *Trouts* are not to be found there, but, as hath been already mentioned, in the Current of the *Rhone*: The *Carps* have taken

ken up their quarter towards *Veuvay*: The *Pikes* and *Pearches* have alſo their Habitations apart. But ſome other Fiſh, that are but Paſſengers, not living conſtantly in the Lake, ſpread themſelves almoſt every where indifferently.

The great Trouts paſs out of the Lake for four Months of the Summer, and are taken in Autumn when they are returning thither. The Fiſhing is farmed out at *Geneva*; and there are Conſervatories where many of thoſe big Trouts are kept, among which there are ſome that weigh fifty pounds. Sometimes they catch Pikes there of eighty pounds weight; and a pound weight at *Geneva* you know to be eighteen Ounces.

In the Months of *July* and *Auguſt* they fiſh there for the Fry of Pearches, at a time when they are no bigger than the ſmalleſt Taggs. Theſe are a very delicious Diſh, there called *Mille Cantons.*

I ſhall add no more than put you in mind of that Duke of *Savoy*, who renounced his Crown and the Pontificat it ſelf, to paſs deliciouſly the reſt of his Days at *Ripialles*, where he made ſo good cheer to all that viſited him, that to expreſs a very merry Entertainment, they ſay ſtill, *faire Ripialles.*

Part

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Part of a Journal kept from Scotland *to* New Caledonia *in* Darien, *with a ſhort Account of that Country. Communicated by* Dr. Wallace, *F. R. S.*

September 2. we weighed at *Madera*, and were under the Tropic of *Cancer* by the 10th of the Month, at which time the uſual Ceremony of Ducking from the Yards-arm was performed on thoſe that could not pay their Tropick Bottle. All this time we had a brisk and conſtant Trade-wind, which laſted three days more, but afterwards we had it more variable than is uſual in that place of the Sea.

The 28th we made *Deſeada*, a ſmall high Iſland, about a league in length and as much in breadth; it is full of Trees, but whether it affords Water or not I know not. It is uninhabited. Next morning we were betwixt *Antego* and *Montſerat*, belonging to the *Engliſh*, both pretty large and mountainous. *Antego* is Peopled with *Engliſh* for the moſt part, and *Montſerat* by a mixture of *Engliſh* and *Iriſh*. Their Product is Sugar and Tobacco. We were in the afternoon cloſe by *Redonda*, a ſmall Rock about a mile long, inhabited only by Noddies and Boobies. When we were ſome leagues from *Redonda*, we

we saw at the same time *Antego*, *Montserat*, *Redonda*, *Nevis*, *St. Christophers*, and *Statia*. We sailed close by *Nevis*, it bearing North of us; it is a small well Peopled Island, its Product is Sugar. They twisted the Flag at the Harbour, and we shew'd them the Company's Colours. *St. Christophers* is a large Island, ill Peopled, belongs half to the *English*, half to the *French*. Night parted us from these Islands, and next day, which was the 30th, we came in sight of *Santa Cruz*, belonging to the *Spaniards*. When we were within four leagues they held a Council. The *Unicorn* and *Snow* were sent to St. *Thomas*, a small Island belonging to the *Danes*; it is a free Port, and they say is well fortified. We went on to the Southward of the Island, and next Day, being *October* 1. we were about 12 a clock past the S. W. corner. It is very level towards the South. That Night we got a sight of *Crab Island*, and next Day

October 2. we came into it, and sent some of our People ashore, and took possession of it in the Companies name. *October* the 4th we stood to the Leeward, hearing there was a Harbour there; when we came we saw the *Danes* Colours flying on the Shore, for the Governour of St. *Thomas* had sent 14 Men and a Captain to take possession of it in the King of *Denmark*'s name. Our Councellors sent to know his Business there, and he told them this, but we found that we had taken possession of the Place before they came from St. *Thomas*. They gave in their Protest, yet seem'd to be glad enough of our Neighbourhood. We had notwithstanding our Flag upon

upon the Shore all the while we ſtay'd, with 100 Men, and Captain *Melean* Governour; they ſtayed till we were gone, but would certainly March next Day, otherwiſe the *Spaniards* of *Porto Rico* would not miſs to take them off.

The 6th, Captain *Pinkerton* and the *Snow* came in from St. *Thomas*, with old Captain *Aliſon* along with them for a Pilot. On the 8th we left this place, and on the 17th made *Noſtra Signiora della Popa*, we lay aſide there along the Coaſt, until the 3d Day of *November*, generally loſing by Night what we had gain'd all Day.

Crab Iſland is about 6 Leagues long, and in ſome places 5 broad, the Soil is very good. It's all full of Trees; all the South ſide is full of Bays, very fit for anchoring in, but the beſt of all is to the Leeward, where the *Dane* hoiſed his Colours. It would have been worth our while to poſſeſs it, had we not been a coming to a better Country. It has this Inconvenience, that nothing but ſtrength of Men, or Peace with every Body, can render it ſecure. It is called *Crab Iſland*, from the multitude of Land-Crabs there.

November 3. We anchored before *Golden Iſland*, and ſent in our Pinnace to the Bay. The Natives had hoiſed a White Flag in ſign of Peace, and told us a great many Stories of Captain *Swan*, Captain *Davies*, and others, for they took us for *Engliſh*, by reaſon of our red Fly; but we took no notice of the Men they nam'd. At laſt they ask'd us our Buſineſs? we told them we deſigned to ſettle among them, and to be their Friends.

They,

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They told us we were very welcome, and that by prediction they had expected us theſe two Years; for they ſay that two Years ago it was foretold them that a People ſhould come and live among them, that would treat them civily, and teach them good manners. We converſed ſome time with them, and after viewing the Harbour came aboard.

The 4th we came into the great Harbour of *Caledonia*: It is a moſt excellent one, for it is about a League in length from N. W. to S. E. It is about half a Mile broad at the Mouth, and in ſome places a Mile and more farther in. It is large enough to contain 500 ſail of Ships. The greateſt part of it is Land-lock'd, ſo that it is ſafe, and cannot be toucht by any Wind that can blow the Harbour, and the Sea makes the Land that lies betwixt them a Peninſula. There is a Point of the Peninſula at the Mouth of the Harbour, that may be fortified againſt a Navy. This Point ſecures the Harbour, ſo that no Ship can enter but muſt be within reach of their Guns. It likewiſe defends half of the Peninſula, for no Guns from the other ſide of the Harbour can touch it, and no Ship carrying Guns dare enter for the Breaſt-work at the Point. The other ſide of the Peninſula is either a Precipice, or defended againſt Ships by Shoals and Breaches, ſo that there remains only the narrow Neck that is not naturally fortify'd; and if 30 Leagues of a Wilderneſs will not do that, it may be artificially fortified 20 ways. In ſhort, it may be made impregnable, and there is Bounds enough within it, if it were all cultivated, to afford 10000 Hogſheads of Sugar every

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every Year. The Soil is rich, the Air good and temperate, the Water is sweet, and every thing contributes to make it healthful and convenient. The Product of this Place, I mean in the Harbour and Creeks hereabouts, is Turtle, Manatee, and a vast variety of very good small Fish, from the bigness of a Salmon to that of a Perch. The Land affords Monkeys of different sorts, Wild-Deer, *Indian* Rabbit, Wild Hog, Parrots of many kinds, Parakites, Macaws, Pelicans, and a hundred more Birds we have got no name to. There are moreover Land-Crabs, Souldiers, Land-Turtle, Lizards, Guanha's, Cock-Lizards, and Scorpions: I had almost forgot Partridges, Pheasants, and a kind of Turkey. All the Birds in this Country are beautiful, but none of them that I could observe have any Notes. We have a Monkey aboard that chirms like a Lark, it will never be bigger than a Rat. This Place affords legions of monstrous Plants, enough to confound all the Methods of Botany ever hitherto thought upon. However, I found a shift to make some Specimens, and that is all I can do. I say some Specimens, because if I should gather all, 'twould be enough to load the St. *Andrew*, for some of their Leaves exceed three Ells in length, and are very broad; besides these Monsters, reducible to no Tribe, there are here a great many of the *European* kindred, (but still something odd about them) as *Lingua Cervina* of different kinds, *Filix* of different kinds, *Polypodium*, several of the *Plantæ Papilonaceæ*, *Musci*, *Fungi*, *Convolvuli*, and a great many more I cannot now remember.

Now come we to their People. The Men are generally very Civil and Sagacious, have all of them good Faces, are of low ſtature, but very well built; they are of a Copper Colour, and have black Hair; they us'd to go naked, but are now as well Cloath'd as our ſelves; they wear a Plate of Gold in their Noſe, and a great many rows of Beads about their Neck and Wriſts. They cover their Yard with a piece of Bark, or ſometimes Silver, of the very ſhape and bigneſs of that Paper-caſe we uſe to put a doſe of Pills in; they ſeem to be very ill furniſh'd, for I never ſaw any of them have it half an Inch long, yet no doubt it's longer, but I fancy they ſheath it up, as Dogs and Horſes do. The Women are generally the moſt pitiful like things that ever Man ſaw; their Habit differs from the Men, for they ordinarily wear a Ring in their Noſe; they have Petticoats and a Veil over their Face. They are under no formal Government, but every Captain commands his own River, Bay or Iſland, where he lives; the greateſt of them all is one Captain *Ambroſio*, he commands particularly the Country about the *Samballoes* Point, but when he pleaſes he can Levy all the Men betwixt that and the Gulf about 20 Leagues. There is another Captain *Pedro*, that lives in the Houſe with *Ambroſio*, and is his Nephew and Son in Law; there is a 3d Captain *Andreas* that commands the River *Das armas*; a 4th Captain *Brandy*, that commands about the *Golden Iſland*; a 5th Captain *Andreas*, that commands the Country adjoining to our Settlement; and a 6th Captain

Pedro

Pedro his Consort; a 7th Captain *Pacigo*, who commands at *Carret Bay*, and Captain *Diego* that commands the Gulph. *Ambrosio* seems to be the greatest, and *Diego* next, both old Men; they are all very much our Friends, and fond of us. All have been frequently here except Captain *Diego* who is Goutyish. Some of these Captains wear the *Scots* Flag in their Canoa's. There is no such thing as a King or Emperor of *Darien*, nor, so far as we can gather from all the chief Men hereabout, has been these 40 or 50 Years: The old Men remember such a Man, they say he was a Tyrant, would take as many Wives as he pleased, and allow them but one, and therefore they cut him off. This derogates much from the reputation of the *History of the Buccaneers*. If there were such a Man, he has been an *Indian* made Emperor by themselves, I mean by the *Buccaneers*. This Country certainly affords Gold enough, for besides that the Natives constantly assure us, that they know several Gold Mines on this side; besides that, I say, the Plates they wear in their Noses, and the quantity of Gold that is among them, is enough to perswade any Man of the truth of it. There was one Night aboard here some *Indians* that had a hundred Ounces of Gold about them. We are certainly much bound to Providence in this affair; for as we were searching for the place we were directed to, we found this, and though the Privateers had been so often at *Golden Island*, and though *English*, *Dutch* and *French* had been all over this Coast, from *Portobelo* to *Carthagena*, yet

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never one of of them made the diſcovery; even the *Spaniards* themſelves never knew of this place. Beſides, for as great a ſecret as we thought the Project, it was known all the *Weſt Indies* over, and yet it was not in their power to cruſh it. At *Madera* they ſeem'd to know it, at St. *Thomas* I'm ſure they knew it; at *Portobelo* their Intelligence was ſo good, that they knew the names of all our Councellors and Captains of Ships before we landed, and had that particular obſervation, that there were four *Roberts* among them. Our circumſtances are in ſome Reſpects very good, for we have advice by the way of *Portobelo*, that there is a great Rebellion in *Mexico*, and Captain *Diego* and all the *Indians* about him are at preſent at War with the *Spaniards*. Captain *Ambroſio* is going to his aſſiſtance, and that will divert them on that ſide; but which is better than all, that we are now in a poſture of defence againſt all the *Spaniſh* force in *America*. I have ſeen already *Dutch*, *French*, and *Engliſh* all at the ſame time in our Harbour, and all of them wonder what the reſt of the World have been thinking on, when we came hither to the beſt Harbour of *America*, in the beſt place of it. Captain *Long* came in eight days after, and I believe we were a great Eye-ſore to him, tho' he ſaid nothing. He commanded the *Rupert Prize*, a ſmall *Engliſh* Man of War, fitted out by the King, upon what deſign we know not, but he pretends it was to ſearch for a Silver Wreck; he was on this coaſt a Month before ſounding it; and converſing with the Natives, he put aſhore Men in ſome places

places, to take poſſeſſion for the King of *Great Britain*, but none of them within 15 Leagues of us. Hearing by the Natives that we were here, he came in with his Long-Boat, as he ſaid to ſee us, but I believe it was only to know the certainty of what he feared was too true. He had told all the *Indian* Captains that he came only to try their inclinations, and that there was a great Fleet coming with a great many People to ſettle among them, and defend them againſt their enemies, he meant *Engliſh* that were to come by his direction; but our Fleet coming within a Month after, they all lookt upon us to be the People he ſpoke of; ſo that whatever Preſents he made them before that time, was as much for our Advantage as if our ſelves had given them. He pretends to be a Conjurer, and to foretel things; but that was the trueſt Prophecy ever he ſpoke, though he knew not whom he ſpoke of.

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A DISCOURSE tending to prove at what Time *and* Place, Julius Cesar *made his first Descent upon* Britain: *Read before the* Royal Society *by* E. Halley.

THough *Chronological* and *Historical* Matters, may not seem so properly the Subject of these Tracts, yet there having, in one of the late Meetings of the *Royal Society*, been some Discourse about the Place where *Julius Cesar* Landed in *Britain*, and it having been required of me to shew the Reason why I concluded it to have been in the *Downs*; in doing thereof, I have had the good Fortune so far to please those worthy Patrons of Learning I have the Honour to serve, that they thought fit to command it to be inserted in the *Philosophical Transactions*, as an instance of the great Use of *Astronomical Computation* for fixing and ascertaining the Times of memorable Actions, when omitted or not duly delivered by the Historian.

1. The Authors that mention this Expedition with any Circumstances, are *Cæsar* in his *Commentaries lib.* 4, and *Dion Cassius* in *lib.* 39; *Livy*'s account being lost, in whose 105*th*. Book might possibly have been found the Story

Story mare at large. It is certain that this Expedition of *Cæsars*, was in the Year of the *Consulate* of *Pompey* and *Crassus*, which was in the Year of *Rome* 699. or the 55*th* before the usual Æra of Christ: And as to the time of the Year, *Cæsar* says that *Exigua parte æstatis reliqua*, he came over only with two Legions, *viz.* the 7*th* and 10*th* and all Foot, in about 80 Sail of Merchant Ships, 18 Sail that were ordered to carry the Horse not being able to get out at the same time from another Port, where they lay Wind-bound. He says that he arrived about the 4th hour of the Day, *viz.* between Nine and Ten in the Morning, on the Coast of *Britain*, where he found the Enemy drawn up on the *Cliffs* ready to repel him, which place he thus describes. *Loci hæc erat natura, adeo montibus augustis mare continebatur ut ex locis superioribus in littus telum adjicit possit*, by which the *Cliffs* of *Dover* and the *South Foreland* are justly described, and could be no other Land, being he says in the 5*th* Book of his Commentaries, *in Britanniam trajectum esse cognoverit circitur millium passum triginta à continenti*, the *Cliffs* of the *North-Foreland* being at a much greater distance. Here he says he came to an Anchor, and staid till the 9*th* hour, or till about between Three and Four in the Afternoon, expecting till his whole Fleet was come up; and in the mean time called a Council of War, and advertised his Officers, after what manner they were to make their Descent, particularly in relation to the Suff of the Sea, whose motion he calls *celerem atq; instabilem*, quick and uneven. Then, *viz.* about

Three in the Afternoon he weighed Anchor, and having gotten the *Wind* and *Tide* with him, he Sail'd about Eight Miles from the firſt place, and Anchor'd againſt an open and plain Shore.

2. Here he made his Deſcent, and having told us the oppoſition that was made, and the means he uſed to get on Shore, he comes to ſay, that after he had been *Four Days* in *Britain*, the 18 Ships with his Horſe put to Sea, and were come in ſight of his Camp, when a ſuddain Tempeſt aroſe, with contrary Wind, ſo that ſome of the Ships put back again, others were driven to the Weſtwards, not without great danger, and coming to Anchor, they found they could not ride it out: ſo when Night came on, they put off to Sea and returned from whence they came. *That ſame Night* it was *Full-Moon*, which makes the greateſt Tides in the Ocean, and they being ignorant thereof, their Gallies, which were drawn on Shore, were filled by the Tide, *&c.*

3. Then he ſays that the Day of the Autumnal Equinox being at hand, after ſome Days ſtay, wherein there paſſed no Action becauſe he kept cloſe in his Camp by the ſhore; and not thinking it proper to ſtay till the Winter came on, he returned into *Gallia*: The next Year he made a further Expedition with 5 Legions and a good Body of Horſe, but there is but little in the Hiſtory thereof ſerving to our purpoſe, excepting that he ſays he ſet Sail from the *Portus Icius* about Sun Set, with a gentle S. W. Wind, *leni Africo profectus*; that about Midnight it fell Calm, and

and being carried away with the Tide, by the time it was Day, he found he had left *Britain* on the left hand; but then the Tide turning they fell to their Oars, and by Noon reached that part of the Island where he Landed before, and came on Shore without opposition: and then March'd up into the Country, leaving his Ships at Anchor *in littora molli & aperto.*

4. This is all in *Cæsar* that is any thing pertinent, and I find no where else any thing to guide us farther, except one passage in *Dion Cassius*, who speaking of the first Landing of *Cæsar*, says ἀμφότεροι γὰρ ἐς ἓν παρέσχεν, that is, as I Translate it. But he Landed not where he intended, for that the *Britains* hearing of his coming, had possest all usual Places of Landing Ἀκρωτήριόν τινα παρείχοντο περιπλεύσας ἑτέρωσε παρεκομίσθη. Καὶ ταῦτα τοὺς παρομίξαντας οἱ ἐς τὰ τενάγη ἀποβαίνοντι νικήσας, ἔρρωτο τῆς γῆς κρατήσας, in my English. Wherefore doubling a certain head Land, he made to the Shore on the other side, where he overcame those that Skirmished with him at the Waters edg, and so got well on Land. Here I make bold to translate the Words ἐς τὰ τενάγη, *at the water edge*, which in *H. Stephens* Edition is interpreted *in paludibus*, but I have the Authority of *Suidas*, who says τέναγος, πελαγία ἰλύς, or the Sea Mud, and is therefore properly the Ouse on the Sea Shore, and by an easie Figure may be put for the Shore it self, where such Ouse commonly is found.

5. From these *data*, That it was in the Year of the *Consulate* of *Pompey*, and *Crassus*; That it was *Exigua parte æstatis reliqua*, and

Four

Four Days before a Full-Moon, which fell out in the Night time. The time of this Invasion will be determined to a Day: For by the Eclipse of the Moon, whereof *Drusus* made so good use to quiet a Mutiny in the *Pannonian* Army, upon the News of the Death of *Augustus*, it follows that *Augustus* Died *Anno Christi* 14. which was reckoned *Anno Urbis conditæ* 767. and that this Action was 68 Years before, *viz.* in the 55*th* Year before Christ Current. In which Year the Full Moon fell out *August* 30. after Midnight, or 31 in the Morning before Day; and the preceeding Full-Moon, was *August* 1. soon after Noon; so that this could not be the Full-Moon mentioned, as falling in the Day time: nor that in the beginning of *July*, it being not 10 Days after the Summer solstice, when it would not have been said *exigua parte æstatis reliqua.* It follows therefore that the Full-Moon spoken of, was on *August* 30. at Night, and that the Landing on *Britain* was *August* 26. in the Afternoon, about a Month before the Autumnal equinox; which agrees to all the Circumstances of the Story in point of Time.

6. As to the Place, the high Land and Cliffs described, could be no other than those of *Dover*, and are allowed to have been so by all, it remains only to examine whether the Descent was made to the Northward or Southward of the place where he first Anchored. The *data* to determine this are first that it was Four Days before the Full-Moon. 2. That that Day by Three of the Clock in the Afternoon the Tide ran the same way he Sail'd.

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Sail'd. 3*dly*. That a S. by E. Moon makes High-Water on all that Coast, the Flood coming from the Southward: hence it will follow, that that Day it was High-Water there about Eight in the Morning, and consequently Low-Water about Two, wherefore by Three the Tide of Flood was well made up, and it is plain that *Cæsar* went with it, and the Flood setting to the North-ward shews that the open plain Shore where he Landed was to the Northward of the Cliffs, and must be in the *Downs*; and this I take to be little less than Demonstration. A second Argument is drawn from the Wind wherewith he set out on his second Expedition, *viz.* S. W. as appears by the Words *leni Africo profectus*, with which the Navigation of those times would hardly permit a Ship to Sail nearer the Wind than Eight Points, or a N. W. Course; which would serve indeed to go into the *Downs*, but would by no means fetch the Low-land towards *Dengyness*, which is much about West from *Calais*, and not more than W. N. W. from *Boulogne*, if it shall be said that that was the *Portus Iccius* from which *Cæsar* set out. Whence I take it to be evident that if *Cæsar* was not bound more Northerly than the *South-Foreland*, he could not have thought the *Africus* or S.W. Wind proper for his passage, which was then intended for the place where he first Landed the year before.

7. Justly to determine which the *Portus Iccius* was I find no where sufficient grounds; only *Ptolemy* calls the Promontory of *Calais-Cliffs* by the name of Ἰκκιον ἄκρον, whence there is reason to conjecture, that the *Portus Iccius* was very

very near thereto, and that it was either *Ambletuse* on one side, or *Calais* on the other. The same *Ptolemy* places Γεσσοριακον ενινειον in the same Latitude with the Ἰκιον ἄκρον, but something more to the East, which seems to refute those that have supposed the Ancient Port of *Gessoriacum* to have been *Boulogne*, whereas by *Ptolemy*'s position, it must be either *Dunkirk* or *Graveling*, but the former most likely, both by the distance from the Ἰκιον ἄκρον, being about 20 Miles or half a degree of Longitude to the East, or $\frac{2}{5}$ of the whole Coast of *Flanders*, which he makes but a degree and quarter from the *Acron Icion* to the mouth of the *Scheld* which he calls *Ostia Tabudæ*: As also for that *Pliny* l. 4. c. 16. speaking of *Gessoriacum*, says the *Proximus Trajectus* into *Britain* from thence is 50 Miles, which is too much unless *Gessoriacum* were something more Easterly than *Calais*. *Dion Cassius* makes the distance between *France* and *Britain* 450 *stadia* or 56 Miles, and says likewise 'tis the neareſt, τὸ Ϛωλομώτατον. But this is in part amended by the explication given in the *Itinerary* of *Antoninus*, where the space between *Gessacorum* and *Rutupium* is said to be 450 *stadia* (for this was the ordinary passage of the *Romans* into *Britain*,) *Rutupium* being more Northerly and *Gessoriacum* more Easterly than the *termini* of *Cæsars* Voyage, and consequently the distance greater than 30 Miles which *Cæsar* had observ'd; and now lately an accurate Survey has proved the distance between Land and Land to be 26 *English Miles* or 28½ *Roman Miles*, which shews how near *Cæsars* estimate was to the Truth.

A

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A farther Argument (but not of equal force with the former becauſe of the modernneſs of the Author, who writ above 250 Years after) may be drawn from the words of *Dion Caſſius*, where he ſays ἄνεμον τινὰ περίχυσιν ἀκπλεύσας ἐτέρωσε παρεκομίσθη, that after his firſt Anchoring he Sail'd about a Promontory to the place where he Landed: Now there are no other Promontories on all that Coaſt but the *South-Foreland* and *Dengyneſs*; the latter of which it could not be, becauſe *Cæſar* ſays he Sail'd but 8 Miles, and the *Neſs* it ſelf is about 10 Miles from the South and neareſt end of the *Chalk-Cliffs* by the Town of *Hith*; and to have gone round that Point to the other ſide, the diſtance muſt have been much greater. So that the Promontory ſpoken of by *Dion*, muſt needs be the *South-Foreland*, and *Cæſar* muſt Anchor near over againſt *Dover*, from whence Sailing 8 Miles, he would double a Head-land and come to the *Downs*; which is ſuch a Coaſt as he deſcribes in one place by *apertum ac planum littus*, and in his 5*th* Book by *molle ac apertum littus*. As to *Dions* word εἰς τὰ τενάγη, what I have already ſaid about it ſeems ſufficient to prove that he means no more than the Waters edg; and the *Etymologiſts* derive it from τέγγω *madefacio*, becauſe the waſh and breach of the Sea does always keep it wet. And this word τὰ τενάγη is uſed by *Polybius* for the Sea Ouſe; and in another place he ſpeaks of the difficulty of Landing at the mouth of a River, Διὰ τὸ τεναγώδη πάθος, *ob limoſum acceſſum*, ſo that it is not to be doubted that it ought to be rendred in this place, *ad vadum maris* rather

rather than *in paludibus*. And so this objection against the assertion that *Cæsar* Landed in the *Downs*, which is known to be a firm Champain Country without Fenns and Moraſſes, will be removed; and the whole Argument will 'tis hoped be admitted by the Curious.

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